

**Biological Data of Arctic Char, *Salvelinus alpinus*, from  
Lake Hazen, Quttinirpaaq National Park, Nunavut,  
1958-2001**

J.A. Babaluk, C.D. Sawatzky, R.J. Wastle, and J.D. Reist

Central and Arctic Region  
Fisheries and Oceans Canada  
Winnipeg, MB R3T 2N6

2007

**Canadian Data Report of  
Fisheries and Aquatic Sciences 1197**



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

**Canada**

## **Canadian Data Report of Fisheries and Aquatic Sciences**

Data reports provide a medium for filing and archiving data compilations where little or no analysis is included. Such compilations commonly will have been prepared in support of other journal publications or reports. The subject matter of the series reflects the broad interests and policies of Fisheries and Oceans Canada, namely, fisheries management, technology and development, ocean sciences, and aquatic environments relevant to Canada.

Data reports are not intended for general distribution and the contents must not be referred to in other publications without prior written clearance from the issuing establishment. The correct citation appears above the abstract of each report. Each report is abstracted in the data base *Aquatic Sciences and Fisheries Abstracts*.

Data reports are produced regionally but are numbered nationally. Requests for individual reports will be filled by the issuing establishment listed on the front cover and title page.

Numbers 1-25 in this series were issued as Fisheries and Marine Service Data Records. Numbers 26-160 were issued as Department of Fisheries and Environment, Fisheries and Marine Service Data Reports. The current series name was changed with report number 161.

## **Rapport statistique canadien des sciences halieutiques et aquatiques**

Les rapports statistiques servent de base à la compilation des données de classement et d'archives pour lesquelles il y a peu ou point d'analyse. Cette compilation aura d'ordinaire été préparée pour appuyer d'autres publications ou rapports. Les sujets des rapports statistiques reflètent la vaste gamme des intérêts et politiques de Pêches et Océans Canada, notamment la gestion des pêches, la technologie et le développement, les sciences océaniques et l'environnement aquatique, au Canada.

Les rapports statistiques ne sont pas préparés pour une vaste distribution et leur contenu ne doit pas être mentionné dans une publication sans autorisation écrite préalable de l'établissement auteur. Le titre exact figure au haut du résumé de chaque rapport. Les rapports à l'industrie sont résumés dans la base de données *Résumés des sciences aquatiques et halieutiques*.

Les rapports statistiques sont produits à l'échelon régional, mais numérotés à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement d'origine dont le nom figure sur la couverture et la page du titre.

Les numéros 1 à 25 de cette série ont été publiés à titre de Records statistiques, Service des pêches et de la mer. Les numéros 26-160 ont été publiés à titre de Rapports statistiques du Service des pêches et de la mer, ministère des Pêches et de l'Environnement. Le nom de la série a été modifié à partir du numéro 161.

Canadian Data Report of  
Fisheries and Aquatic Sciences 1197

2007

**BIOLOGICAL DATA OF ARCTIC CHAR, *Salvelinus alpinus*, FROM  
LAKE HAZEN, QUTTINIRPAAQ NATIONAL PARK, NUNAVUT,  
1958-2001**

by

J.A. Babaluk, C.D. Sawatzky, R.J. Wastle, and J.D. Reist

Central and Arctic Region  
Department of Fisheries and Oceans  
Winnipeg, MB R3T 2N6

© Her Majesty the Queen in Right of Canada, 2007

Cat. No. Fs 97-13/1197E ISSN 0706-6465

Correct citation for this publication is:

Babaluk, J.A., C.D. Sawatzky, R.J. Wastle, and J.D. Reist. 2007. Biological data of Arctic char, *Salvelinus alpinus*, from Lake Hazen, Quttinirpaaq National Park, Nunavut, 1958-2001. Can. Data Rep. Fish. Aquat. Sci. 1197: vi + 98 p.



## TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT/RÉSUMÉ .....	vi
INTRODUCTION.....	1
MATERIALS AND METHODS .....	1
Description of the study area .....	1
Collection methods.....	2
1958 .....	2
1981 .....	2
1990 .....	2
1992 .....	2
1995/1996.....	2
1998 .....	3
2001 .....	3
Biological data .....	3
Data analysis .....	4
DATA PRESENTATION .....	5
ACKNOWLEDGMENTS .....	6
REFERENCES .....	6

## LIST OF TABLES

Table

1	Biological data for Arctic char captured by gillnet and angling in Lake Hazen in 1958.....	8
2	Biological data for Arctic char captured by gillnet in Lake Hazen in 1981 .....	21
3	Biological data for Arctic char captured in Lake Hazen in 1990 .....	33
4	Biological data for Arctic char captured in Lake Hazen in 1992 .....	35
5	Biological data for Arctic char captured by angling, radio-tagged, and released in Lake Hazen in 1995 .....	44

<u>Table</u>		<u>Page</u>
6	Biological data for Arctic char captured by angling, T-bar-tagged, and released in Lake Hazen in 1995 .....	46
7	Biological data for Arctic char captured and retained from Lake Hazen in 1995 .....	51
8	Biological data for Arctic char captured by angling, radio-tagged, and released in Lake Hazen in 1996 .....	52
9	Biological data for Arctic char captured by angling, T-bar-tagged, and released in Lake Hazen in 1996 .....	54
10	Biological data for Arctic char captured and retained from Lake Hazen in 1996 .....	56
11	Biological data for Arctic char captured in Lake Hazen in 1998 .....	57
12	Biological data for Arctic char captured in Lake Hazen in 2001 .....	61

### LIST OF FIGURES

<u>Figure</u>		
1	Map of Lake Hazen, Quttinirpaaq National Park, Nunavut showing general collection areas for Arctic char .....	71
2	Relationship between 1958 Lake Hazen Arctic char otolith ages determined by the "whole" method (original ages) and "thin-section" method (revised ages) .....	72
3	Relationship between 1981 Lake Hazen Arctic char otolith ages determined by the "whole" method (original ages) and "break-and-burn" method (revised ages) .....	73
4	Length-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1958 .....	74
5	Age-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1958 using the revised ages .....	75
6	Relationship between fork length and age for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1958 using the revised ages .....	76
7	Length-frequency distributions for (A) male, (B) female, and (C) all Arctic char captured in Lake Hazen in 1981 .....	77
8	Age-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1981 using the revised ages .....	78
9	Relationship between fork length and age for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1981 using the revised ages .....	79
10	Relationship between weight and fork length for (A) male, (B) females and (C) all Arctic char captured in Lake Hazen in 1981 .....	80
11	Length-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1990 .....	81

<u>Figure</u>		<u>Page</u>
12	Age-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1990 .....	82
13	Relationship between fork length and age for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1990 .....	83
14	Relationship between weight and fork length for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1990 .....	84
15	Length-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1992 .....	85
16	Age-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1992 .....	86
17	Relationship between fork length and age for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1992 .....	87
18	Relationship between weight and fork length for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1992 .....	88
19	Length-frequency distributions for all Arctic char captured in Lake Hazen in (A) 1995 and (B) in 1996 .....	89
20	Relationship between weight and fork length for all Arctic char captured in Lake Hazen in (A) 1995 and (B) 1996 .....	90
21	Length-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1998 .....	91
22	Age-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1998 .....	92
23	Relationship between fork length and age for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1998 .....	93
24	Relationship between weight and fork length for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1998 .....	94
25	Length-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 2001 .....	95
26	Age-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 2001 .....	96
27	Relationship between fork length and age for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 2001 .....	97
28	Relationship between weight and fork length for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 2001 .....	98

### ABSTRACT

Babaluk, J.A., C.D. Sawatzky, R.J. Wastle, and J.D. Reist. 2007. Biological data of Arctic char, *Salvelinus alpinus*, from Lake Hazen, Quttinirpaaq National Park, Nunavut, 1958-2001. Can. Data Rep. Fish. Aquat. Sci. 1197: vi + 98 p.

Selected biological data from Arctic char, *Salvelinus alpinus*, collected between 1958 and 2001 from Lake Hazen, Quttinirpaaq National Park, Nunavut are tabulated and graphically presented.

Key words: Age determination; ageing methods comparison; Arctic char; Ellesmere Island, Lake Hazen; Nunavut; Quttinirpaaq National Park

### RÉSUMÉ

Babaluk, J.A., C.D. Sawatzky, R.J. Wastle, and J.D. Reist. 2007. Biological data of Arctic char, *Salvelinus alpinus*, from Lake Hazen, Quttinirpaaq National Park, Nunavut, 1958-2001. Can. Data Rep. Fish. Aquat. Sci. 1197: vi + 98 p.

Les données biologiques sélectionnées de l'omble chevalier, *Salvelinus alpinus*, recueillies entre 1958 et 2001 au lac Hazen dans le Parc national Quttinirpaaq au Nunavut, sont compilées et présentées sous forme de graphiques.

Mots-clés : Détermination de l'âge; comparaison des méthodes de vieillissement; omble chevalier; île d'Ellesmere, lac Hazen; Nunavut; Parc national Quttinirpaaq

## INTRODUCTION

Lake Hazen, located at the northern end of Ellesmere Island in the Canadian High Arctic (Fig. 1) is the largest body of freshwater in the world that is entirely north of the Arctic Circle (Johnson 1990). The only fish species present in the lake is Arctic char (*Salvelinus alpinus*) (Hunter 1960; Johnson 1983). As a result of scientific investigations in 1958 and 1981, some basic biological information on the char in Lake Hazen were summarized by Hunter (1960) and Johnson (1983). In 1988, Ellesmere Island National Park Reserve (as of 1999, Quttinirpaaq National Park) was created under the auspices of Parks Canada. Lake Hazen is located within this park. A basic understanding of the biology and diversity of the char population in Lake Hazen is fundamental to Parks Canada's long-term conservation and management plans for these fish (Parks Canada 1994). Fisheries and Oceans Canada (DFO), in collaboration with Parks Canada, has been assessing the diversity of Arctic char populations in Quttinirpaaq National Park since 1990 with the majority of the work centred on the char of Lake Hazen (e.g., Reist et al. 1995; Babaluk et al. 1997; Babaluk et al. 2001; Guiguer et al. 2002). This report presents biological data from Lake Hazen char that have been sampled from the years 1958 to 2001.

## MATERIALS AND METHODS

### DESCRIPTION OF THE STUDY AREA

Quttinirpaaq National Park is located at the northern end of Ellesmere Island, Nunavut (Fig. 1, inset). The most northern area of the Park, Cape Aldrich at 83° 06' N, is also the most northern point in the Canadian Arctic Archipelago. The park, with an area of 37 775 km<sup>2</sup>, is the second largest national park in Canada and is described in detail in Parks Canada (1994). Lake Hazen (81°50'N, 70°25'W), the largest lake in the park and the largest lake in the Canadian Arctic Archipelago, has a surface area of 537.5 km<sup>2</sup> (Inland Waters Directorate 1973) and a recorded maximum depth of 263 m (Deane 1959) (Fig. 1). The lake is fed by glacial melt-water from the ice-fields of the Grant Land Mountains to the north (Stewart 1994) and its drainage basin covers approximately 4 900 km<sup>2</sup> (Parks Canada 1994). The lake retains partial ice-cover in most summers (Parks Canada unpublished data). The lake is extremely oligotrophic, lacks macrophytes and has low phytoplankton (Johnson 1990) and zooplankton productivity (McLaren 1964). Thirty-four species of benthic invertebrates have been reported from the lake (Oliver 1963) and the only fish species in the lake is Arctic char (Hunter 1960; Johnson 1983).

## COLLECTION METHODS

1958

Arctic char were captured from several locations in Lake Hazen between June 7 and August 20, 1958, mainly by gillnets but some fish were also captured by angling and seine nets. Locations included Hazen Camp, Johns Island, Blister Creek, Snow Goose and Abbé rivers, Mesa Creek (originally named Section Creek), Cuesta Creek, and the head of the Ruggles River (Fig. 1) (I.A. McLaren, Dalhousie University, Halifax, pers. comm. 2007). Some collection details including gillnet details for the 1958 sample are given by Hunter (1960) and Johnson (1983).

1981

Arctic char were captured from two areas of Lake Hazen between August 14 and 18, 1981 by gillnets (19, 32, 44, 57, and 70 mm bar-mesh) and angling. Locations sampled included Hazen Camp and at the lake's outlet at the Ruggles River (Fig. 1) (A. Kristofferson, Fisheries and Oceans Canada, Winnipeg, pers. comm. 2007).

1990

Arctic char were captured in Lake Hazen between May 8 and 15, 1990 through the ice by angling at either the outlet at the Ruggles River or in the vicinity of Hazen Camp (Fig. 1) (B. Billeck, Fisheries and Oceans Canada, Winnipeg, pers. comm. 2007).

1992

Arctic char were collected from Lake Hazen at four main sites between June 14 and 21, 1992: Blister Creek, Henrietta Nesmith Glacier, Mesa Creek and at the Ruggles River outlet. Additional fish were collected at the Gilman River and Hazen Camp (Fig. 1). All fish were captured by either multi-mesh nylon multifilament gillnets (two gangs made up of panels of 10, 12.5, 16, 19, 22, and 25 mm and 10, 19, 33, 45, 55, and 60 mm bar-mesh) set under the ice or angling through the ice with lures as described by Reist et al. (1995).

1995/1996

During 1995 and 1996, a radio-telemetry study was conducted on Lake Hazen Arctic char to determine whether these fish were anadromous and to determine movements of char within the lake. Char for this study were initially captured from May 7 - 13, 1995 and May 24 - 27, 1996. Materials and methods and detailed results of the radio-telemetry study are described by Babaluk et al. (2001). T-bar tagging and oxytetracycline

marking studies were initiated along with the radio-telemetry study to determine movements of char in the lake and to validate age determination methods, respectively. Char for these studies were initially captured between May 7 and August 13, 1995 and May 24 and August 8, 1996. All fish for all of the work were angled, either through the ice or in open water.

1998

Arctic char were captured in open water in Lake Hazen between July 24 and August 2, 1998 by gillnets and angling at either the outlet at the Ruggles River or in the general vicinity of Hazen Camp (Fig. 1). Gillnets consisted of two gangs made up of panels of 10, 12.5, 16, 19, 22, and 25 mm and 10, 19, 33, 45, 55, and 60 mm bar-mesh.

2001

Arctic char were captured in open water in Lake Hazen between July 30 and August 11, 2001 by gillnets (gangs made up of panels of 10, 12.5, 16, 19, 22, and 25 mm and 10, 19, 33, 45, 55, and 60 mm bar-mesh), by electro-fishing (Smith-Root model LR-24), and by angling in the general vicinity of Hazen Camp and Mesa Creek (Fig. 1).

#### BIOLOGICAL DATA

In 1958, Arctic char were measured for fork length (nearest mm) and weighed (unknown units); sexes were determined; and otoliths (for age estimations) were collected in the field. Although the fish were weighed (Hunter 1960; Johnson 1983; I.A. McLaren, pers. comm.), the raw weight data appear to have been lost and were not available to the authors of this report. Ages were determined in the laboratory using the "whole" otolith method.

In 1981, Arctic char were measured for fork length (nearest mm) and weighed (nearest 25 g); sexes were determined; and otoliths were collected in the field. Similar to the 1958 sample, ages were determined in the laboratory using the "whole" otolith method.

Subsequent to these early field expeditions, the "whole" otolith method for determining the ages of Arctic char was questioned because it may produce under-estimates of the ages of larger (older) fish when compared to ages derived from the "break-and-burn" and thin-section otolith methods (Barber and McFarlane 1987; Kristoffersen and Klemetsen 1991). We compared ages determined from whole otoliths (1958 and 1981 samples) to those determined from thin sections of otoliths (1958 sample, Fig. 2) and those determined from the "break-and-burn" method (1981 sample, Fig. 3). Although we present both sets of ages for the 1958 and 1981 collections (Tables 1 and 2), all subsequent analysis used ages determined from the thin sections



and "break-and-burn" methods. Definitions and methodologies for the "whole", thin-section, and "break-and-burn" otolith age determinations are given by Chilton and Beamish (1982).

Limited biological data from Arctic char were collected in the field in all other sampling years (1990-2001). Fork length (nearest mm) and weight (nearest g) were collected in the field from some fresh fish specimens in some years. All char collected were frozen whole in the field and transported to DFO (Winnipeg) for subsequent processing. This included measuring (nearest mm) and weighing (nearest g) of thawed individuals, determination of sex by gross visual examination, gonad weight (nearest 0.1 g), and absolute fecundity (total egg count), where applicable. Otoliths were collected for age determination. Ages were determined using the "break-and-burn" or thin-section technique described in Reist et al. (1995) and aged using the criteria described by Nordeng (1961) and Chilton and Beamish (1982).

From the lengths and weights of selected individual fish recorded in the field and the subsequent lengths and weights of these fish determined after thawing in the laboratory, we derived the following equations to convert all thawed lengths and weights to "fresh" values:

$$\text{Fresh fork length} = 1.016721 \times \text{thawed fork length}$$

$$\text{Fresh weight} = 1.013071 \times \text{thawed weight}$$

"Fresh" length and weight data are presented in the subsequent tables and have been used to produce applicable figures. A "blank value" in a table indicates that that parameter was not assessed or was not applicable for that fish.

Otoliths from Lake Hazen Arctic char collected in 1958 are archived at the Canadian Museum of Nature (P.O. Box 3443, Station D, Ottawa, Ontario, K1P 6P4, Canada) and otoliths from char collected in all other years are archived at Fisheries and Oceans Canada (501 University Crescent, Winnipeg, Manitoba, R3T 2N6, Canada). Selected, frozen, processed char collected between 1990 and 2001 are archived at Fisheries and Oceans Canada in Winnipeg. An electronic version of the raw data is available from the senior author at Fisheries and Oceans Canada in Winnipeg.

#### DATA ANALYSIS

Length, weight, and age data were analysed using SigmaStat® (3.1) and figures were created using SigmaPlot 2000® personal computer software programs.

Length-weight relationships were described by the equation:



$$\text{Log}_{10}W = a + b \times \text{log}_{10}L$$

where: W = weight in grams  
 L = fork length in millimetres  
 a = Y axis intercept  
 b = slope of the regression line.

## DATA PRESENTATION

Biological data for individual Arctic char captured in Lake Hazen are presented as follows: 1958 (Table 1), 1981 (Table 2), 1990 (Table 3), 1992 (Table 4), 1995 (Tables 5, 6, and 7), 1996 (Tables 8, 9, and 10), 1998 (Table 11), and 2001 (Table 12).

Length-frequency distributions for Arctic char collected from Lake Hazen are presented as follows: 1958 (Fig. 4), 1981 (Fig. 7), 1990 (Fig. 11), 1992 (Fig. 15), 1995 and 1996 (Fig. 19), 1998 (Fig. 21), and 2001 (Fig. 25).

Age-frequency distributions for Arctic char collected from Lake Hazen are presented as follows: 1958 (Fig. 5), 1981 (Fig. 8), 1990 (Fig. 12), 1992 (Fig. 16), 1998 (Fig. 22), and 2001 (Fig. 26).

Relationships between fork length and age (i.e., growth rate) for Arctic char collected from Lake Hazen are presented as follows: 1958 (Fig. 6), 1981 (Fig. 9), 1990 (Fig. 13), 1992 (Fig. 17), 1998 (Fig. 23), and 2001 (Fig. 27).

Relationships between fork length and body weight, including length-weight equations, for Arctic char collected from Lake Hazen are presented as follows: 1981 (Fig. 10), 1990 (Fig. 14), 1992 (Fig. 18), 1995 and 1996 (Fig. 20), 1998 (Fig. 24), and 2001 (Fig. 28).

## ACKNOWLEDGMENTS

The work was done in part with the support of Parks Canada. Natural Resources Canada (Polar Continental Shelf Project) at Resolute, Nunavut provided logistical support. The 1958 sample of Arctic char was collected by a group of researchers from the Fisheries Research Board of Canada (Arctic Biological Station, Montreal) led by I.A. McLaren. The 1981 collection was made by A. Kristofferson, R. Moshenko, R. Peet, and M. Roberge from Fisheries and Oceans Canada (Freshwater Institute, Winnipeg). The 1990 sample was collected by G. Brunskill, B. Billeck, and P. Wilkinson from Fisheries and Oceans Canada (Freshwater Institute, Winnipeg). The authors thank N. Babaluk, B. Billeck, D. Clark, E. Gyselman, J. Johnson, J. Maurice, N. Mochnacz, P. Robinson, V. Sahanatien, B. Troke, P. Wilkinson, R. Wissink, G. Walker, and M. Yank for field assistance and logistical support during the 1992, 1995, 1996, 1998, and 2001 sampling periods at Lake Hazen. A. Kristofferson and K. Mills provided constructive comments on an earlier version of the manuscript.

## REFERENCES

- Babaluk, J.A., Halden, N.M., Reist, J.D., Kristofferson, A.H., Campbell, J.L., and Teesdale, W.J. 1997. Evidence for non-anadromous behaviour of arctic charr (*Salvelinus alpinus*) from Lake Hazen, Ellesmere Island, Northwest Territories, Canada, based on scanning proton microprobe analysis of otolith strontium distribution. *Arctic* 50: 224-233.
- Babaluk, J.A., Wissink, H.R., Troke, B.G., Clark, D.A., and Johnson, J.D. 2001. Summer movements of radio-tagged arctic charr (*Salvelinus alpinus*) in Lake Hazen, Nunavut, Canada. *Arctic* 54: 418-424.
- Barber, W.A., and McFarlane, G.A.. 1987. Evaluation of three techniques to age Arctic char from Alaskan and Canadian waters. *Trans. Amer. Fish. Soc.* 116: 874-881.
- Chilton, D.R., and Beamish, R.J. 1982. Age determination methods for fishes studied by the Groundfish Program at the Pacific Biological Station. *Can. Spec. Publ. Fish. Aquat. Sci.* 60. 102 p.
- Deane, R.E. 1959. Pleistocene geology and limnology. *In* Operation Hazen: narrative and preliminary reports, 1957-58. Edited by G. Hattersley-Smith. Defence Res. Board Can. Ottawa. pp. 61-63.
- Guiguer, K.R.R.A., Reist, J.D., Power, M., and Babaluk, J.A.. 2002. Using stable isotopes to confirm the trophic ecology of Arctic charr morphotypes from Lake Hazen, Nunavut, Canada. *J. Fish Biol.* 60: 348-362.

- Hunter, J.G. 1960. Hazen Lake. *In* Annual report and investigators summaries (April 1, 1959 to March 31, 1960). Fish. Res. Board Can. Arctic Unit. Ottawa. pp. 18-20.
- Inland Waters Directorate. 1973. Inventory of Canadian freshwater lakes. Environment Canada, Water Resources Branch. Ottawa.
- Johnson, L. 1983. Homeostatic characteristics of single species fish stocks in Arctic lakes. *Can. J. Fish. Aquat. Sci.* 40: 987-1024.
- Johnson, L. 1990. Hazen Lake. *In* Data book of world lake environments. Edited by Lake Biwa Research Institute and International Lake Environment Committee. United Nations Environment Programme. Otsu, Japan. pp. 1-9.
- Kristoffersen, K., and Klemetsen, A. 1991. Age determination of Arctic charr (*Salvelinus alpinus*) from surface and cross section of otoliths related to otolith growth. *Nordic J. of Freshw. Res.* 66: 98-107.
- Nordeng, H. 1961. On the biology of char (*Salmo alpinus* L.) in Salangen, North Norway. I. Age and spawning frequency determined from scales and otoliths. *Nytt. Mag. Zool.* 10: 67-123.
- McLaren, I.A. 1964. Zooplankton of Lake Hazen, Ellesmere Island, and a nearby pond, with special reference to the copepod *Cyclops scutifer* Sars. *Can. J. Zool.* 42: 613-629.
- Oliver, D.R. 1963. Entomological studies in the Lake Hazen area, Ellesmere Island, including lists of species of Arachnida, Collembola, and Insecta. *Arctic* 16: 175-180.
- Parks Canada. 1994. Ellesmere Island National Park Reserve resource description and analysis. Department of Canadian Heritage, Winnipeg.
- Reist, J.D., Gyselman, E., Babaluk, J.A., Johnson, J.D., and Wissink R. 1995. Evidence for two morphotypes of arctic char (*Salvelinus alpinus*) from Lake Hazen, Ellesmere Island, Northwest Territories, Canada. *Nordic J. Freshwater Res.* 71: 496-410.
- Stewart, D.B. 1994. Limnology and marine biology. *In* Ellesmere Island National Park Reserve resource description and analysis. Chap. 2, Vol. 2. Department of Canadian Heritage, Winnipeg.

Table 1. Biological data for Arctic char captured by gillnet and angling in Lake Hazen in 1958.

Sample no. <sup>1</sup>	Date captured (M Y)	Fork length (mm)	Sex <sup>2</sup>	Age (whole otolith) (yr+)	Age (sectioned otolith) (yr+)
1	06-08 1958	476		16	19
2	06-08 1958	477	M	19	23
3	06-08 1958	367	F	17	28
4	06-08 1958	449	F	14	18
5	06-08 1958	522	F	21	22
6	06-08 1958	350	M	19	23
7	06-08 1958	375	M	20	20
8	06-08 1958	360	M	19	26
9	06-08 1958	277	M	15	14
10	06-08 1958	354	M	20	20
11	06-08 1958	378	M	24	27
12	06-08 1958	615	M	26	29
13	06-08 1958	267	F	12	11
14	06-08 1958	343	M	20	19
15	06-08 1958	302	M	17	17
16	06-08 1958	348	F	13	17
17	06-08 1958	353	M	17	20
18	06-08 1958	358	M	24	27
19	06-08 1958	356	M	20	23
20	06-08 1958	280	M	15	14
21	06-08 1958	317	M	20	19
22	06-08 1958	369	M	22	22
23	06-08 1958	316	F	19	24
24	06-08 1958	395	M	19	22
25	06-08 1958	349	M	23	26
26	06-08 1958	328	F	20	25
27	06-08 1958	343	M	17	27
28	06-08 1958	330	F	15	20
29	06-08 1958	359	M	20	21
30	06-08 1958	337	M	18	23
31	06-08 1958	293	M	16	15
32	06-08 1958	301	F	17	22
33	06-08 1958	327	M	19	23
34	06-08 1958	328	M	18	23
35	06-08 1958	299	F	15	17
36	06-08 1958	348	M	19	25
37	06-08 1958	378	M	19	22
38	06-08 1958	343	F	16	25
39	06-08 1958	415	M	20	
40	06-08 1958	354	M	20	27

Table 1. continued.

Sample no. <sup>1</sup>	Date captured (M Y)	Fork length (mm)	Sex <sup>2</sup>	Age (whole otolith) (yr+)	Age (sectioned otolith) (yr+)
41	06-08 1958	345	M	19	20
42	06-08 1958	307	M	17	25
43	06-08 1958	358	F	19	22
44	06-08 1958	248	F	14	15
45	06-08 1958	322	M	19	25
46	06-08 1958	338	M	20	22
47	06-08 1958	338	M	21	23
48	06-08 1958	317	F	19	26
49	06-08 1958	336	M	19	21
50	06-08 1958	376	F	20	29
51	06-08 1958	360	M	20	20
52	06-08 1958	308	F	15	17
53	06-08 1958	596	M	24	24
54	06-08 1958	472	F	23	25
55	06-08 1958	571	M	20	25
56	06-08 1958	325	M		21
57	06-08 1958	348	M	12	11
58	06-08 1958	240	F	11	11
59	06-08 1958	315	F	17	17
60	06-08 1958	313	F	19	27
61	06-08 1958	364	M	25	28
62	06-08 1958	303	F	15	16
63	06-08 1958	298	F	17	28
64	06-08 1958	267	F	17	16
65	06-08 1958	325	M	19	20
66	06-08 1958	302	F	16	17
67	06-08 1958	310	F	17	19
68	06-08 1958	320	F	19	25
69	06-08 1958	363	M	20	21
70	06-08 1958	389	M	21	23
71	06-08 1958	575	M	24	25
72	06-08 1958	724		27	28
73	06-08 1958	323	M	18	18
74	06-08 1958	425	F	18	21
75	06-08 1958	535	M	22	25
76	06-08 1958	322	F	15	20
77	06-08 1958	293	F	15	22
78	06-08 1958	354	M	23	30
79	06-08 1958	360	M	19	22
80	06-08 1958	364	M	19	22

Table 1. continued.

Sample no. <sup>1</sup>	Date captured (M Y)	Fork length (mm)	Sex <sup>2</sup>	Age (whole otolith) (yr+)	Age (sectioned otolith) (yr+)
81	06-08 1958	570	M	22	23
82	06-08 1958	332	F	18	20
83	06-08 1958	358	M	20	22
84	06-08 1958	323	F	19	29
85	06-08 1958	347	M	19	21
86	06-08 1958	504	F		27
87	06-08 1958	325	M	17	20
88	06-08 1958	502	M	21	22
89	06-08 1958	353	M	20	27
90	06-08 1958	591	M	21	23
91	06-08 1958	282	M	15	16
92	06-08 1958	338	M	19	28
93	06-08 1958	598	M	19	24
94	06-08 1958	514	M	21	24
95	06-08 1958	452	F	22	30
96	06-08 1958	412	F	17	17
97	06-08 1958	507	M	21	18
98	06-08 1958	420	F	19	22
99	06-08 1958	300	M	14	15
100	06-08 1958	319	F	18	22
101	06-08 1958	362	M	21	27
102	06-08 1958	509	M	21	23
103	06-08 1958	352	M	17	23
104	06-08 1958	343	M	19	23
105	06-08 1958	442	F	18	20
106	06-08 1958	355	M	19	22
107	06-08 1958	354	M	16	18
108	06-08 1958	203	M	10	9
109	06-08 1958	351	M	18	21
110	06-08 1958	346	M	20	24
111	06-08 1958	362	M	21	21
112	06-08 1958	578	M	20	23
113	06-08 1958	515	F	25	31
114	06-08 1958	525	M	23	29
115	06-08 1958	485	M	22	23
116	06-08 1958	477	F	18	23
117	06-08 1958	433	M	20	26
118	06-08 1958	342	M	23	22
119	06-08 1958	362	M	26	30
120	06-08 1958	311	F	19	22

Table 1. continued.

Sample no. <sup>1</sup>	Date captured (M Y)	Fork length (mm)	Sex <sup>2</sup>	Age (whole otolith) (yr+)	Age (sectioned otolith) (yr+)
121	06-08 1958	363	M	20	23
122	06-08 1958	289	F	10	10
123	06-08 1958	493	F	20	21
124	06-08 1958	502	M	22	27
125	06-08 1958	562	M	20	
126	06-08 1958	388	M	19	14
127	06-08 1958	432	F	18	24
128	06-08 1958	417	M	17	15
129	06-08 1958	450	F	17	21
130	06-08 1958	477	F	20	23
131	06-08 1958	572	M	19	
132	06-08 1958	347	M	17	18
133	06-08 1958	300	F	13	14
134	06-08 1958	302	F	17	18
135	06-08 1958	341	M	16	15
136	06-08 1958	333	F	17	28
137	06-08 1958	378	M	20	20
138	06-08 1958	329	M	17	19
139	06-08 1958	351	M	17	19
140	06-08 1958	338	M	19	18
141	06-08 1958	331	M	20	24
142	06-08 1958	558	M	22	24
143	06-08 1958	543	F	22	26
144	06-08 1958	547	F	23	29
145	06-08 1958	328	M	19	23
146	06-08 1958	381	F	15	18
147	06-08 1958	309	M	18	18
148	06-08 1958	343	M	16	16
149	06-08 1958	307	F	20	23
150	06-08 1958	399	F	18	16
151	06-08 1958	497	F	18	21
152	06-08 1958	347	M	20	24
153	06-08 1958	324	F	16	20
154	06-08 1958	320	F	17	23
155	06-08 1958	335	M	20	19
156	06-08 1958	318	F	17	20
157	06-08 1958	362	M	17	16
158	06-08 1958	320	F	16	18
159	06-08 1958	412	F	16	15
160	06-08 1958	309	F	19	23

Table 1. continued.

Sample no. <sup>1</sup>	Date captured (M Y)	Fork length (mm)	Sex <sup>2</sup>	Age (whole otolith) (yr+)	Age (sectioned otolith) (yr+)
161	06-08 1958	352	F	19	29
162	06-08 1958	319	F	14	24
163	06-08 1958	328	M	16	17
164	06-08 1958	317	M	20	20
165	06-08 1958	379	M	23	24
166	06-08 1958	325	M	16	18
167	06-08 1958	364	M	17	30
168	06-08 1958	358	M	17	21
169	06-08 1958	260	M	14	15
170	06-08 1958	298	F	15	15
171	06-08 1958	328	F	18	22
172	06-08 1958	340	M	22	31
173	06-08 1958	381	M	17	18
174	06-08 1958	447	F	16	25
175	06-08 1958	351	M	21	21
176	06-08 1958	452	F	18	21
177	06-08 1958	428	M	20	19
178	06-08 1958	547	F	26	34
179	06-08 1958	521	M	22	24
180	06-08 1958	335	M	23	27
181	06-08 1958	314	F	14	19
182	06-08 1958	340	F	16	26
183	06-08 1958	327	F	16	17
184	06-08 1958	348	F	18	23
185	06-08 1958	351	M	19	20
186	06-08 1958	342	M	21	28
187	06-08 1958	248	M	14	14
188	06-08 1958	263	F	15	16
189	06-08 1958	217	M	10	9
190	06-08 1958	223	M	10	10
191	06-08 1958	231	M	12	11
192	06-08 1958	245	F	14	14
193	06-08 1958	234	F	13	16
194	06-08 1958	232	F	12	12
195	06-08 1958	233	M	14	14
196	06-08 1958	215	F	13	14
197	06-08 1958	191	M	11	9
198	06-08 1958	179	M	11	9
199	06-08 1958	192	F	9	7
200	06-08 1958	188	M	11	10



Table 1. continued.

Sample no. <sup>1</sup>	Date captured (M Y)	Fork length (mm)	Sex <sup>2</sup>	Age (whole otolith) (yr+)	Age (sectioned otolith) (yr+)
201	06-08 1958	212	F	9	10
202	06-08 1958	198	F	11	11
203	06-08 1958	203	F	11	11
204	06-08 1958	327	M	18	18
205	06-08 1958	314	M	17	17
206	06-08 1958	206	F	16	18
207	06-08 1958	313	F	17	17
208	06-08 1958	313	F	13	18
209	06-08 1958	258	F	16	17
210	06-08 1958	314	F	16	23
211	06-08 1958	340	F	18	35
212	06-08 1958	343	M	22	23
213	06-08 1958	264	M	12	12
214	06-08 1958	359	M	17	24
215	06-08 1958	337	F	17	29
216	06-08 1958	320	F	18	23
217	06-08 1958	345	M	19	23
218	06-08 1958	306	F	16	22
219	06-08 1958	332	F	19	26
220	06-08 1958	338	M	20	22
221	06-08 1958	350	M	19	22
222	06-08 1958	322	F	18	20
223	06-08 1958	331	M	20	23
224	06-08 1958	328	F	20	22
225	06-08 1958	286	F	19	21
226	06-08 1958	424	M	18	17
227	06-08 1958	333	F	17	21
228	06-08 1958	312	F	14	21
229	06-08 1958	332	M	19	22
230	06-08 1958	601	M	30	31
231	06-08 1958	283	F	11	
232	06-08 1958	532	M	16	20
233	06-08 1958	315	F	17	21
234	06-08 1958	328	M	15	18
235	06-08 1958	320	F	15	32
236	06-08 1958	294	F	18	19
237	06-08 1958	349	M	18	25
238	06-08 1958	314	M	15	15
239	06-08 1958	340	M	21	22
240	06-08 1958	574	F	20	23

Table 1. continued.

Sample no. <sup>1</sup>	Date captured (M Y)	Fork length (mm)	Sex <sup>2</sup>	Age (whole otolith) (yr+)	Age (sectioned otolith) (yr+)
241	06-08 1958	332	M	27	29
242	06-08 1958	450	M	19	20
243	06-08 1958	333	M	16	16
244	06-08 1958	362	F	20	23
245	06-08 1958	349	M	18	26
246	06-08 1958	333	F	18	20
247	06-08 1958	238	M	15	15
248	06-08 1958	342	M	24	27
249	06-08 1958	345	M	16	22
250	06-08 1958	297	M	14	
251	06-08 1958	350	M	16	20
252	06-08 1958	236	F	11	11
253	06-08 1958	297	F	15	21
254	06-08 1958	320	F	21	28
255	06-08 1958	290	M	17	18
256	06-08 1958	243	F	10	10
257	06-08 1958	344	M	18	22
258	06-08 1958	335	F	16	22
259	06-08 1958	288	F	14	14
260	06-08 1958	530	F	23	27
261	06-08 1958	597	M	20	25
262	06-08 1958	365	F	15	16
263	06-08 1958	348	M	20	23
264	06-08 1958	353	F	17	24
265	06-08 1958	442	F	18	20
266	06-08 1958	324	F	13	11
267	06-08 1958	450	M	20	16
268	06-08 1958	427	F	16	14
269	06-08 1958	486	M	19	16
270	06-08 1958	428	M	16	15
271	06-08 1958	457	F	16	16
272	06-08 1958	542	M	21	23
273	06-08 1958	488	F	19	18
274	06-08 1958	658	M	21	20
275	06-08 1958	660	M	33	32
276	06-08 1958	454	M	16	15
277	06-08 1958	452	M	21	21
278	06-08 1958	423	M	17	18
279	06-08 1958	513	F	24	28
280	06-08 1958	593	M	24	28

Table 1. continued.

Sample no. <sup>1</sup>	Date captured (M Y)	Fork length (mm)	Sex <sup>2</sup>	Age (whole otolith) (yr+)	Age (sectioned otolith) (yr+)
281	06-08 1958	469	M	20	
282	06-08 1958	474	M	19	24
283	06-08 1958	515	M	19	23
284	06-08 1958	484	F	15	16
285	06-08 1958	408	F	16	16
286	06-08 1958	684	M	24	23
287	06-08 1958	633	M	21	23
288	06-08 1958	541	M	19	20
289	06-08 1958	537	M	22	25
290	06-08 1958	398	M		14
291	06-08 1958	360	M	18	20
292	06-08 1958	436	M	19	17
293	06-08 1958	333	M	16	18
294	06-08 1958	574	M	19	28
295	06-08 1958	329	M	17	15
296	06-08 1958	351	M	18	23
297	06-08 1958	430	F	17	16
298	06-08 1958	352	M	20	25
299	06-08 1958	580	M	23	24
300	06-08 1958	558	M	21	24
301	06-08 1958	504	M	21	22
302	06-08 1958	373	M	19	22
303	06-08 1958	453	M	18	16
304	06-08 1958	322	M	17	16
305	06-08 1958	182	F	10	9
306	06-08 1958	195	F	11	11
307	06-08 1958	296	F	12	11
308	06-08 1958	333	F	19	26
309	06-08 1958	349	M	22	30
310	06-08 1958	310	F	16	24
311	06-08 1958	337	F	18	22
312	06-08 1958	483	M	19	17
313	06-08 1958	296	F	12	10
314	06-08 1958	328	M	18	17
315	06-08 1958	324	M	20	22
316	06-08 1958	609	M	20	25
317	06-08 1958	353	F	15	16
318	06-08 1958	345	M	18	20
319	06-08 1958	334	F	17	18
320	06-08 1958	646	M	19	19

Table 1. continued.

Sample no. <sup>1</sup>	Date captured (M Y)	Fork length (mm)	Sex <sup>2</sup>	Age (whole otolith) (yr+)	Age (sectioned otolith) (yr+)
321	06-08 1958	675	M	23	29
322	06-08 1958	490	M	17	22
323	06-08 1958	364	M	13	11
324	06-08 1958	320	F	15	14
325	06-08 1958	322	F	15	30
326	06-08 1958	327	F	18	22
327	06-08 1958	341	M	19	21
328	06-08 1958	329	M	15	17
329	06-08 1958	328	M	15	16
330	06-08 1958	334	F	17	20
331	06-08 1958	368	M		12
332	06-08 1958	319	M	18	17
333	06-08 1958	353	F	24	31
334	06-08 1958	388	M	16	21
335	06-08 1958	320	M	15	14
336	06-08 1958	331	F	20	25
337	06-08 1958	326	F	16	15
338	06-08 1958	552	M	18	22
339	06-08 1958	427	M	17	23
340	06-08 1958	337	M	19	21
341	06-08 1958	335	M	18	20
342	06-08 1958	578	M	25	27
343	06-08 1958	433	M	19	18
344	06-08 1958	327	F	14	15
345	06-08 1958	323	F	19	20
346	06-08 1958	332	M	14	13
347	06-08 1958	362	M	17	20
348	06-08 1958	380	F	16	16
349	06-08 1958	357	F	21	
350	06-08 1958	439	F	19	24
351	06-08 1958	385	M	17	18
352	06-08 1958	648	M	26	30
353	06-08 1958	380	F	15	16
354	06-08 1958	371	M	18	23
355	06-08 1958	339	F	18	22
356	06-08 1958	348	M	17	23
357	06-08 1958	355	F	15	16
358	06-08 1958	353	M	20	27
359	06-08 1958	378	M	15	14
360	06-08 1958	354	M	18	19

Table 1. continued.

Sample no. <sup>1</sup>	Date captured (M Y)	Fork length (mm)	Sex <sup>2</sup>	Age (whole otolith) (yr+)	Age (sectioned otolith) (yr+)
361	06-08 1958	538	F	19	23
362	06-08 1958	505	F	19	24
363	06-08 1958	527	M	19	33
364	06-08 1958	580	F	29	36
365	06-08 1958	448	F	16	20
366	06-08 1958	469	F	18	27
367	06-08 1958	79	F	4	3
371	06-08 1958	62		3	2
372	06-08 1958	47		2	
373	06-08 1958	43		2	1
378	06-08 1958	33		1	0
379	06-08 1958	32		1	
380	06-08 1958	31		1	0
381	06-08 1958	33			
385	06-08 1958	432	M	15	15
387	06-08 1958	334	M	17	18
388	06-08 1958	439	M	17	24
389	06-08 1958	336	M	19	22
390a	06-08 1958	344	F	19	21
390b	06-08 1958	415	M	20	22
391	06-08 1958	349	M	16	19
392	06-08 1958	331	M	15	21
393	06-08 1958	340	M	18	29
394	06-08 1958	213	M	11	11
395	06-08 1958	216	F	10	9
396	06-08 1958	672	M	25	30
397	06-08 1958	608	M	21	31
398	06-08 1958	417	F	16	22
399	06-08 1958	332	F	17	20
400	06-08 1958	372	M	20	27
401	06-08 1958	349	M	15	22
403	06-08 1958	314	F	17	21
404	06-08 1958	316	M	15	17
405	06-08 1958	283	M	12	13
406	06-08 1958	340	F	16	21
407	06-08 1958	334	F	20	22
408	06-08 1958	322	F	13	20
409	06-08 1958	304	F	14	22
410	06-08 1958	366	M	15	16
411	06-08 1958	313	M	17	23
412	06-08 1958	345	F	17	

Table 1. continued.

Sample no. <sup>1</sup>	Date captured (M Y)	Fork length (mm)	Sex <sup>2</sup>	Age (whole otolith) (yr+)	Age (sectioned otolith) (yr+)
413	06-08 1958	305	M	15	16
414	06-08 1958	372	F	15	14
415	06-08 1958	294	F	14	20
416	06-08 1958	403	F	15	15
417	06-08 1958	371	M	19	20
418	06-08 1958	318	M	17	18
419	06-08 1958	355	M	19	22
420	06-08 1958	293	M	13	16
421	06-08 1958	333	M	17	18
422	06-08 1958	346	M	18	21
423	06-08 1958	403	M	19	22
424	06-08 1958	327	M	17	19
425	06-08 1958	346	M	16	22
426	06-08 1958	400	F	16	16
427	06-08 1958	312	M	16	16
428	06-08 1958	347	F	17	20
429	06-08 1958	380	F	14	16
430	06-08 1958	406	M	19	27
431	06-08 1958	361	M	18	20
432	06-08 1958	324	F	17	22
433	06-08 1958	327	M	18	22
434	06-08 1958	292	M	21	22
435	06-08 1958	476	M	18	26
436	06-08 1958	504	F	18	21
437	06-08 1958	515	M	18	20
438	06-08 1958	123	M	6	5
439	06-08 1958	668	M	19	21
440	06-08 1958	445	F	17	27
441	06-08 1958	547	M	20	38
442	06-08 1958	543	M	22	33
443	06-08 1958	561	M	26	30
444	06-08 1958	578	M	22	29
445	06-08 1958	640	M	20	24
446	06-08 1958	548	F	19	20
447	06-08 1958	623	M	25	29
448	06-08 1958	529	M	18	24
449	06-08 1958	575	M	21	24
450	06-08 1958	590	M	24	32
451	06-08 1958	639	M	21	29
452	06-08 1958	638	M	22	24

Table 1. continued.

Sample no. <sup>1</sup>	Date captured (M Y)	Fork length (mm)	Sex <sup>2</sup>	Age (whole otolith) (yr+)	Age (sectioned otolith) (yr+)
453	06-08 1958	527	M	17	23
454	06-08 1958	336	M	15	24
455	06-08 1958	590	M	21	20
456	06-08 1958	360	M	15	23
457	06-08 1958	382	M	18	23
458	06-08 1958	333	M	18	23
459	06-08 1958	577	F	19	26
460	06-08 1958	510	M	23	31
461	06-08 1958	591	M	18	24
479	06-08 1958	358	M	20	23
480	06-08 1958	402	F	15	22
481	06-08 1958	330	M	17	17
482	06-08 1958	368	M	17	25
483	06-08 1958	330	M	18	21
484	06-08 1958	367	M	16	27
485	06-08 1958	342	M	17	18
486	06-08 1958	345	M	21	22
487	06-08 1958	356	M	24	23
488	06-08 1958	417	M	23	22
489	06-08 1958	353	M	19	22
490	06-08 1958	320	M	14	15
491	06-08 1958	338	F	16	25
492	06-08 1958	359	M	16	23
493	06-08 1958	310	M	15	17
494	06-08 1958	346	M	17	26
495	06-08 1958	371	M	20	23
496	06-08 1958	329	M	18	20
497	06-08 1958	366	M	18	21
498	06-08 1958	350	M	18	24
499	06-08 1958	306	F	16	15
500	06-08 1958	352	M	18	23
501	06-08 1958	428	F	17	23
502	06-08 1958	331	F	19	
503	06-08 1958	350	F	17	21
504	06-08 1958	297	F	16	17
505	06-08 1958	326	F	16	22
506	06-08 1958	332	F	18	18
507	06-08 1958	352	M	18	23
508	06-08 1958	316	F	15	20
509	06-08 1958	578	M	23	27

Table 1. continued.

Sample no. <sup>1</sup>	Date captured (M Y)	Fork length (mm)	Sex <sup>2</sup>	Age (whole otolith) (yr+)	Age (sectioned otolith) (yr+)
510	06-08 1958	582	F	22	23
511	06-08 1958	408	M	13	11
512	06-08 1958	337	M	18	20
513	06-08 1958	334	M	18	21
514	06-08 1958	324	F	14	16
515	06-08 1958	355	F	16	26
516	06-08 1958	334	F	16	27
517	06-08 1958	340	M	15	20
518	06-08 1958	340	M	18	23
519	06-08 1958	346	F	18	25
520	06-08 1958	315	F	16	24
521	06-08 1958	371	M	20	28
522	06-08 1958	356	M	18	25
523	06-08 1958	343	F	18	28
524	06-08 1958	323	F	14	21
525	06-08 1958	355	M	18	20
526	06-08 1958	358	M	20	27
527	06-08 1958	350	M	16	21
528	06-08 1958	349	M	18	24
529	06-08 1958	336	F	19	31
530	06-08 1958	336	F	20	24
531	06-08 1958	318	F	18	18
532	06-08 1958	348	M	17	24
533	06-08 1958	350	M	19	19
534	06-08 1958	327	M	16	20
535	06-08 1958	287	M	12	13
536	06-08 1958	358	M	19	22
537	06-08 1958	329	F	17	29

<sup>1</sup> original sample number on otolith envelope.<sup>2</sup> M = male; F = female.



Table 2. Biological data for Arctic char captured by gillnet in Lake Hazen in 1981.

Sample no. <sup>1</sup>	Date captured (D M Y)	Location captured <sup>2</sup>	Fork length (mm)	Weight (g)	Sex <sup>3</sup>	Age (whole otolith) (yr+)	Age (break & burn otolith) (yr+)	Fecundity
1	14 08 1981	HC	633	2450	M	21	20	
2	14 08 1981	HC	330					
3	14 08 1981	HC	600	1900	M	16		
4	14 08 1981	HC	435	700	M	17		
5	14 08 1981	HC	410	550	M			
6	14 08 1981	HC	327	400	M	16		
7	14 08 1981	HC	355	450	M			
8	14 08 1981	HC	372	500	M	20		
9	14 08 1981	HC	322	350	F	15	17	
10	14 08 1981	HC	346	450	M	17		
11	14 08 1981	HC	340	350	F	19		
12	14 08 1981	HC	371	450	M			
13	14 08 1981	HC	340	450	M	16		
14	14 08 1981	HC	362	450	M	16		
15	14 08 1981	HC	340	400	F	19		
16	14 08 1981	HC	787	3550	M	24	32	
17	14 08 1981	HC	647	2750	M	19		
18	14 08 1981	HC	640	1850	M	21		
19	14 08 1981	HC	347	450	M	15		
20	14 08 1981	HC	366	500	M	22		
21	14 08 1981	HC	355	450	M	23		
22	14 08 1981	HC	334	350	F			
23	14 08 1981	HC	366	450	M	21		
24	14 08 1981	HC	327	350	F	20		
25	14 08 1981	HC	340	350	F	20		
26	14 08 1981	HC	325	350	F			
27	14 08 1981	HC	370	400	M	23		
28	14 08 1981	HC	356	450	M	18		
29	14 08 1981	HC	329	400	F			533
30	14 08 1981	HC	485	1150	M			
31	14 08 1981	HC	378	550	M	15	20	
32	14 08 1981	HC	369	550	M	20	21	
33	14 08 1981	HC	400	650	F	16	23	
34	14 08 1981	HC	331	400	M	19	19	
35	14 08 1981	HC	392	600	M	22	23	
36	14 08 1981	HC	340	450	M	14	17	
37	15 08 1981	HC	344	400	F	17	19	
38	15 08 1981	HC	364	400	F	17	22	
39	15 08 1981	HC	324	400	F	14	15	
40	15 08 1981	HC	362	500	M	21	20	

Table 2. continued.

Sample no. <sup>1</sup>	Date captured (D M Y)	Location captured <sup>2</sup>	Fork length (mm)	Weight (g)	Sex <sup>3</sup>	Age (whole otolith) (yr+)	Age (break & burn otolith) (yr+)	Fecundity
41	15 08 1981	HC	395	600	M	19	21	
42	15 08 1981	HC	204	100	F	10	9	
43	15 08 1981	HC	352	450	F	17	16	
44	15 08 1981	HC	430	750	M		22	
45	15 08 1981	HC	362	400	M	23	23	
46	15 08 1981	HC	372	450	M		22	
47	15 08 1981	HC	308	300	F		16	
48	15 08 1981	HC	362	400	M	20	22	
49	15 08 1981	HC	374	500	M	23	24	
50	15 08 1981	HC	354	500	M	20	22	
51	15 08 1981	HC	372	400	M		30	
52	15 08 1981	HC	352	450	M	16	18	
53	15 08 1981	HC	359	500	M	21	23	
54	15 08 1981	HC	340	400	M		20	
55	15 08 1981	HC	339	350	F	23	23	762
56	15 08 1981	HC	357	450	M	20	24	
57	15 08 1981	HC	356	400	F	21	22	684
58	15 08 1981	HC	330	400	F	20	19	694
59	15 08 1981	HC	355	450	M		23	
60	15 08 1981	HC	335	400	F	15	16	
61	15 08 1981	HC	380	500	M	21	21	
62	15 08 1981	HC	374	500	M	20	20	
63	15 08 1981	HC	375	550	M	20	19	
64	15 08 1981	HC	330	350	F	20	24	
65	15 08 1981	HC	362	450	M	20	25	
66	15 08 1981	HC	331	450	M	15	15	
67	15 08 1981	HC	346	450	M	20	24	
68	15 08 1981	HC	317	350	M	17	16	
69	15 08 1981	HC	349	350	M	19	28	
70	15 08 1981	HC	351	450	M	18	17	
71	15 08 1981	HC	325	350	M	15	15	
72	15 08 1981	HC	368	450	M		23	
73	15 08 1981	HC	328	350	M	17	17	
74	15 08 1981	HC	360	500	M	19	19	
75	15 08 1981	HC	316	300	M	15	15	
76	15 08 1981	HC	352	450	M		24	
77	15 08 1981	HC	370	400	M		33	
78	15 08 1981	HC	343	375	M	19	20	
79	15 08 1981	HC	330	275	M	12	12	
80	15 08 1981	HC	340	375	M	22	24	

Table 2. continued.

Sample no. <sup>1</sup>	Date captured (D M Y)	Location captured <sup>2</sup>	Fork length (mm)	Weight (g)	Sex <sup>3</sup>	Age (whole otolith) (yr+)	Age (break & burn otolith) (yr+)	Fecundity
81	15 08 1981	HC	365	400	M	18	23	
82	15 08 1981	HC	341	325	M		23	
83	15 08 1981	HC	295	300	F	16	17	442
84	15 08 1981	HC	348	325	M	17	29	
85	15 08 1981	HC	299	275	M	12	11	
86	15 08 1981	HC	318	325	F		23	
87	15 08 1981	HC	320	375	M	21	20	
88	15 08 1981	HC	358	400	M	20	21	
89	15 08 1981	HC	347	350	F		29	325
90	15 08 1981	HC	361	325	M		31	
91	15 08 1981	HC	315		F	16	22	
92	15 08 1981	HC	354	450	M	12	21	
93	15 08 1981	HC	348	475	M	23	24	
94	15 08 1981	HC	370	450	M	16	22	
95	15 08 1981	HC	336	425	M	19	22	
96	15 08 1981	HC	330	375	F	15	20	607
97	15 08 1981	HC	337	400	M	21	22	
98	15 08 1981	HC	332	400	M	18	20	
99	15 08 1981	HC	357	400	M	16	25	
100	15 08 1981	HC	342	375	F	21	22	
101	15 08 1981	HC	349	400	F	16	21	664
102	15 08 1981	HC	363	500	M	20	20	
103	15 08 1981	HC	336	350	F	17	23	567
104	15 08 1981	HC	378	400	M	26	26	
105	15 08 1981	HC	333	300	F	14	22	
106	15 08 1981	HC	330	350	F		29	
107	15 08 1981	HC	378	500	M	24	27	
108	15 08 1981	HC	355	375	M	17	23	
109	15 08 1981	HC	295	250	M	14	18	
110	15 08 1981	HC	340	425	M	21	22	
111	15 08 1981	HC	326	350	F		22	
112	15 08 1981	HC	330	300	F	17	24	
113	15 08 1981	HC	313	325	F	18	20	
114	15 08 1981	HC	574	1475	M	27	25	
115	15 08 1981	HC	735	4900	M	25	24	
116	15 08 1981	HC	379	400	M		24	
117	15 08 1981	HC	550	1725	M	23		
118	15 08 1981	HC	608	1850	M	30	29	
119	15 08 1981	HC	373	525	M	21	24	
120	15 08 1981	HC	305	300	F	14	16	

Table 2. continued.

Sample no. <sup>1</sup>	Date captured (D M Y)	Location captured <sup>2</sup>	Fork length (mm)	Weight (g)	Sex <sup>3</sup>	Age (whole otolith) (yr+)	Age (break & burn otolith) (yr+)	Fecundity
121	15 08 1981	HC	335	450	M	20	20	
122	15 08 1981	HC	370	525	M		23	
123	15 08 1981	HC	359	425	M		24	
124	15 08 1981	HC	355	450	M	22	22	
125	15 08 1981	HC	350	450	M	17	24	
126	15 08 1981	HC	348	425	M		25	
127	15 08 1981	HC	315	300	F	16	15	405
128	15 08 1981	HC	355	450	M	20	22	
129	15 08 1981	HC	420	625	M		18	
130	15 08 1981	HC	366	450	M			
131	15 08 1981	HC	320	475	F	21	20	535
132	15 08 1981	HC	357	475	M		17	
133	15 08 1981	HC	360	425	M		22	
134	15 08 1981	HC	330	300	M	22	29	
135	15 08 1981	HC	350	450	F		22	
136	15 08 1981	HC	719	2800	M		24	
137	15 08 1981	HC	572	1950	M	17	17	
138	15 08 1981	HC	560	1700	M	25	25	
139	15 08 1981	HC	352	350	M		23	
140	15 08 1981	HC	717	4800	M		22	
141	15 08 1981	HC	610	2250	M	22	19	
142	15 08 1981	HC	530	1450	M	16	17	
143	15 08 1981	HC	560	1800	F	18	17	
144	15 08 1981	HC	594	2000	M	25	25	
145	15 08 1981	HC	586	1800	M	21	30	
146	15 08 1981	HC	352	400	M	20	19	
147	15 08 1981	HC	338	350	F		29	582
148	15 08 1981	HC	348	350	M		22	
149	15 08 1981	HC	335	350	F	19	20	
150	15 08 1981	HC	345	450	M	21	21	
151	15 08 1981	HC	310	300	M	16	15	
152	15 08 1981	HC	664	2300	M	32		
153	15 08 1981	HC	470	1050	M		27	
154	15 08 1981	HC	390	600	F	22	23	
155	15 08 1981	HC	348	300	F	15	25	
156	15 08 1981	HC	368	500	M	16	16	
157	15 08 1981	HC	350	400	M	17	21	
158	15 08 1981	HC	357	400	M	19	22	
159	16 08 1981	HC	372	500	M	21	23	
160	16 08 1981	HC	336	300	F			

Table 2. continued.

Sample no. <sup>1</sup>	Date captured (D M Y)	Location captured <sup>2</sup>	Fork length (mm)	Weight (g)	Sex <sup>3</sup>	Age (whole otolith) (yr+)	Age (break & burn otolith) (yr+)	Fecundity
161	16 08 1981	HC	380	450	M	17	26	
162	16 08 1981	HC	320	350	F	12	13	
163	16 08 1981	HC	355	450	M	20	21	
164	16 08 1981	HC	367	400	M	26	30	
165	16 08 1981	HC	347	400	M		19	
166	16 08 1981	HC	380	400	M	19	28	
167	16 08 1981	HC	330	400	M	14	13	
168	16 08 1981	HC	332	300	M	21		
169	16 08 1981	HC	359	350	M	15	24	
170	16 08 1981	HC	344	350	M	20	30	
171	16 08 1981	HC	345	300	M	20	22	
172	16 08 1981	HC	328	300	F		18	
173	16 08 1981	HC	291	200	F	15	14	
174	16 08 1981	HC	239	150	F	9	8	
175	16 08 1981	HC	664	3250	M		21	
176	16 08 1981	HC	557	1700	M	21	21	
177	16 08 1981	HC	472	1000	F	17	18	
178	16 08 1981	HC	417	700	M	11	10	
179	16 08 1981	HC	477	1050	F	16	15	
180	16 08 1981	HC	237	100	F	13	11	
181	16 08 1981	HC	357	450	M	19	23	
182	16 08 1981	HC	350	400	M		25	
183	16 08 1981	HC	324	300	F		24	
184	16 08 1981	HC	318	300	M	16	16	
185	16 08 1981	HC	280	200	F	15	14	
186	16 08 1981	HC	331	400	M			
187	16 08 1981	HC	282	250	M	15	14	
188	16 08 1981	HC	470	1000	F	14	14	
189	16 08 1981	HC	380	500	M	19	21	
190	16 08 1981	HC	340	350	M	17	27	
191	16 08 1981	HC	335	350	M	16	15	
192	16 08 1981	HC	365	450	M	16	17	
193	16 08 1981	HC	191	50	M	10	9	
194	16 08 1981	HC	335	400	M	20	19	
195	16 08 1981	HC	391	500	M	20	23	
196	16 08 1981	HC	355	450	M	18	23	
197	16 08 1981	HC	350	450	M	16	16	
198	16 08 1981	HC	362	400	M	19	24	
199	16 08 1981	HC	368	400	M	20	20	
200	16 08 1981	HC	370	450	M	18	21	

Table 2. continued.

Sample no. <sup>1</sup>	Date captured (D M Y)	Location captured <sup>2</sup>	Fork length (mm)	Weight (g)	Sex <sup>3</sup>	Age (whole otolith) (yr+)	Age (break & burn otolith) (yr+)	Fecundity
201	16 08 1981	HC	348	300	F		23	
202	16 08 1981	HC	374	500	M	20	26	
203	16 08 1981	HC	347	400	M	20	20	
204	16 08 1981	HC	375	500	M	21	31	
205	16 08 1981	HC	350	400	M		29	
206	16 08 1981	HC	343	400	M		24	
207	16 08 1981	HC	345	400	M	20	21	
208	16 08 1981	HC	343	400	M	15	14	
209	16 08 1981	HC	370	450	M		21	
210	16 08 1981	HC	357	500	M	19	18	
211	16 08 1981	HC	353	400	M	20	21	
212	16 08 1981	HC	370	500	M	22	23	
213	16 08 1981	HC	394	500	M		24	
214	16 08 1981	HC	358	400	M	14	20	
215	16 08 1981	HC	355	500	M	18	20	
216	16 08 1981	HC	350	450	M	16	20	
217	16 08 1981	HC	411	650	M			
218	16 08 1981	HC	365	500	M	20	20	
219	16 08 1981	HC	346	400	M		22	
220	16 08 1981	HC	348	400	M		22	
221	16 08 1981	HC	370	450	M	21		
222	16 08 1981	HC	335	400	F	19	19	585
223	16 08 1981	HC	350	400	M	14	16	
224	16 08 1981	HC	344	400	M	15	14	
225	16 08 1981	HC	300	250	M	14	16	
226	16 08 1981	HC	312	300	M	15	15	
227	16 08 1981	HC	358	450	M	25	23	
228	16 08 1981	HC	320	300	F	16	18	
229	16 08 1981	HC	362	400	M	25		
230	16 08 1981	HC	297	250	F	16	15	
231	16 08 1981	HC	346	400	M	22	23	
232	16 08 1981	HC	329	350	M	14	12	
233	16 08 1981	HC	280	200	M	11	11	
234	16 08 1981	HC	345	400	M	15	14	
235	16 08 1981	HC	356	400	M			
236	16 08 1981	HC	363	400	M		22	
237	16 08 1981	HC	372	450	M	19	21	
238	16 08 1981	HC	355	400	M		22	
239	16 08 1981	HC	341	400	M	19	18	
240	16 08 1981	HC	365	400	M	19	21	

Table 2. continued.

Sample no. <sup>1</sup>	Date captured (D M Y)	Location captured <sup>2</sup>	Fork length (mm)	Weight (g)	Sex <sup>3</sup>	Age (whole otolith) (yr+)	Age (break & burn otolith) (yr+)	Fecundity
241	16 08 1981	HC	340	350	M	22	21	
242	16 08 1981	HC	352	400	M		19	
243	16 08 1981	HC	343	350	F		22	
244	16 08 1981	HC	362	500	M	19	21	
245	16 08 1981	HC	368	450	M		22	
246	16 08 1981	HC	372	450	M	20	20	
247	16 08 1981	HC	350	350	M	20	23	
248	16 08 1981	HC	350	350	M	19	23	
249	16 08 1981	HC	365	400	M	22	23	
250	16 08 1981	HC	355	450	M	20	22	
251	16 08 1981	HC	360	350	M	20	21	
252	16 08 1981	HC	375	500	M	20	22	
253	16 08 1981	HC	328	300	M	16	15	
254	16 08 1981	HC	350	400	M	19	23	
255	16 08 1981	HC	348	350	M	19	21	
256	16 08 1981	HC	353	400	F	19	20	
257	16 08 1981	HC	380	450	M	19	20	
258	16 08 1981	HC	319	250	M	15	14	
259	16 08 1981	HC	348	400	M	14	14	
260	16 08 1981	HC	290	250	F	15	14	
261	16 08 1981	HC	334	300	F	15	20	
262	16 08 1981	HC	301	250	F	15	14	
263	16 08 1981	HC	328	350	M	13	13	
264	16 08 1981	HC	330	275	M	21	21	
265	16 08 1981	HC	300	275	F	14	16	
266	16 08 1981	HC	311	275	F	17	16	
267	16 08 1981	HC	344	300	F		31	
268	16 08 1981	HC	300	275	M		15	
269	16 08 1981	HC	335	350	M	15	19	
270	16 08 1981	HC	293	225	F	16	16	
271	16 08 1981	HC	354	450	M	23	23	
272	16 08 1981	HC	310	300	M	17	15	
273	16 08 1981	HC	343	300	F		20	
274	16 08 1981	HC	360	475	M	21	25	
275	16 08 1981	HC	333	375	F	17	23	
276	16 08 1981	HC	358	400	M	24	23	
277	16 08 1981	HC	328	300	F	15	15	
278	16 08 1981	HC	356	375	M	18		
279	16 08 1981	HC	355	375	M	9	8	
280	16 08 1981	HC	360	375	M		24	

Table 2. continued.

Sample no. <sup>1</sup>	Date captured (D M Y)	Location captured <sup>2</sup>	Fork length (mm)	Weight (g)	Sex <sup>3</sup>	Age (whole otolith) (yr+)	Age (break & burn otolith) (yr+)	Fecundity
281	16 08 1981	HC	365	400	F	15	22	
282	16 08 1981	HC	330	325	F		22	
283	16 08 1981	HC	435	725	M	19	18	
284	16 08 1981	HC	358	450	M	22	24	
285	16 08 1981	HC	345	375	M	20	21	
286	16 08 1981	HC	332	375	M		21	
287	16 08 1981	HC	340	375	M	19	21	
288	16 08 1981	HC	326	325	M	19	18	
289	16 08 1981	HC	345	400	M	19	18	
290	16 08 1981	HC	340	400	F		23	
291	16 08 1981	HC	353	425	M		21	
292	16 08 1981	HC	340	400	F	21	23	
293	16 08 1981	HC	330	325	M	14	20	
294	16 08 1981	HC	355	375	M	20	21	
295	16 08 1981	HC	325	325	M			
296	16 08 1981	HC	354	325	F		29	
297	16 08 1981	HC	375	500	M	19	20	
298	16 08 1981	HC	330	325	F	19	24	
299	16 08 1981	HC	382	475	M	19	20	
300	16 08 1981	HC	310	275	M	15	14	
301	16 08 1981	HC	365	375	M	19	23	
302	16 08 1981	HC	334	400	M	16	15	
303	16 08 1981	HC	328	350	M	16	15	
304	16 08 1981	HC	360	425	M		22	
305	16 08 1981	HC	345	300	M	19	21	
306	16 08 1981	HC	327	300	F	21	23	
307	16 08 1981	HC	360	450	M		20	
308	16 08 1981	HC	370	375	F	24	24	
309	16 08 1981	HC	360	425	M	14	15	
310	16 08 1981	HC	322	300	F	17	18	
311	16 08 1981	HC	350	425	M		23	
312	16 08 1981	HC	363	450	M		20	
313	16 08 1981	HC	319	325	F	12	12	
314	16 08 1981	HC	325	350	M	18	17	
315	16 08 1981	HC	355	375	M	15	21	
316	16 08 1981	HC	320	375	F	17	19	
317	16 08 1981	HC	335	350	F			
318	16 08 1981	HC	360	400	M	18	22	
319	16 08 1981	HC	318	300	F	22	23	
320	16 08 1981	HC	345	400	M	18	23	



Table 2. continued.

Sample no. <sup>1</sup>	Date captured (D M Y)	Location captured <sup>2</sup>	Fork length (mm)	Weight (g)	Sex <sup>3</sup>	Age (whole otolith) (yr+)	Age (break & burn otolith) (yr+)	Fecundity
321	16 08 1981	HC	364	425	M		15	
322	16 08 1981	HC	310	325	F	19	24	
323	17 08 1981	HC	357	300	F		24	
324	17 08 1981	HC	645	2250	M	28	31	
325	17 08 1981	HC	365	450	M	19	20	
326	17 08 1981	HC	360	400	M	21	23	
327	17 08 1981	HC	328	250	M	20	20	
328	17 08 1981	HC	350	300	M	19	21	
329	20 08 1981	HC	358	400	M	22	23	
330	20 08 1981	HC	344	350	F	15	15	
331	20 08 1981	HC	354	450	M	20	20	
332	20 08 1981	HC	360	500	F	17	21	
333	20 08 1981	HC	350	450	F	20	20	
334	20 08 1981	HC	345	400	F	19	20	
1A	17 08 1981	HC	635	2450	M	21	20	
2A	17 08 1981	HC	680	3625	M		21	
3A	17 08 1981	HC	350	400	M	20	20	
4A	17 08 1981	HC	314	350	M	17	19	
5A	17 08 1981	HC	355	425	M	25	27	
6A	17 08 1981	HC	312	275	F		25	
7A	17 08 1981	HC	340	425	M	16	19	
8A	17 08 1981	HC	345	375	M		21	
9A	17 08 1981	HC	355	400	M		21	
10A	17 08 1981	HC	356	450	M	22	23	
11A	17 08 1981	HC	378	525	M	16	15	
12A	17 08 1981	HC	300	336	F	16	24	
13A	17 08 1981	HC	324	350	F	15	23	469
14A	17 08 1981	HC	257	175	M	12	11	
15A	17 08 1981	HC	221	100	M	11	10	
16A	17 08 1981	HC	325	275	F			
17A	17 08 1981	HC	356	425	M		22	
18A	17 08 1981	HC	360	400	M		25	
19A	17 08 1981	HC	360	450	M	19	24	
20A	17 08 1981	HC	360	450	M	16	22	
21A	17 08 1981	HC	352	375	M	21	24	
22A	17 08 1981	HC	312	300	F		28	
23A	17 08 1981	HC	356	400	M	26	26	
24A	17 08 1981	HC	303	300	F		26	412
25A	17 08 1981	HC	340	325	M	20	24	
26A	17 08 1981	HC	317	325	F	17	21	

Table 2. continued.

Sample no. <sup>1</sup>	Date captured (D M Y)	Location captured <sup>2</sup>	Fork length (mm)	Weight (g)	Sex <sup>3</sup>	Age (whole otolith) (yr+)	Age (break & burn otolith) (yr+)	Fecundity
27A	17 08 1981	HC	331	325	M	18	23	356
28A	17 08 1981	HC	329	325	F		18	
29A	17 08 1981	HC	355	400	F	12	12	
30A	17 08 1981	HC	350	375	M		25	
31A	17 08 1981	HC	280	225	F	17	16	
32A	17 08 1981	HC	272	200	M	12	14	
33A	17 08 1981	HC	361	400	M		21	
34A	17 08 1981	HC	340	400	M	16	24	
35A	17 08 1981	HC	336	350	M	17	20	
36A	17 08 1981	HC	308	275	M	17	16	
37A	17 08 1981	HC	342	350	M	17	16	
38A	17 08 1981	HC	348	375	M	12	12	
39A	17 08 1981	HC	540	1375	M	14		
40A	17 08 1981	HC	542	1450	M		22	
41A	17 08 1981	HC	420	625	F			
42A	17 08 1981	HC	333	350	M	17	16	
43A	17 08 1981	HC	360	500	M	17	23	
44A	17 08 1981	HC	241	150	M	15	14	
45A	17 08 1981	HC	305	300	M	18	17	
46A	17 08 1981	HC	344	400	M	15	14	
47A	17 08 1981	HC	340	350	F	18	23	
48A	17 08 1981	HC	340	350	M	20	24	
49A	17 08 1981	HC	338	375	M		23	
50A	17 08 1981	HC	382	450	M		23	
51A	17 08 1981	HC	655	3175	M		21	
52A	17 08 1981	HC	300	300	F	16	15	
53A	17 08 1981	HC	340	400	M	14	18	
54A	17 08 1981	HC	324	325	F	18	22	
55A	17 08 1981	HC	346	400	M	20	22	
56A	17 08 1981	HC	355	350	M		29	
57A	17 08 1981	HC	545	1600	F		17	
58A	17 08 1981	HC	344	350	M		24	
59A	17 08 1981	HC	334	325	F	22	26	
60A	17 08 1981	HC	347	375	M	17	16	
61A	17 08 1981	HC	325	300	M	16	15	
62A	17 08 1981	HC	320	300	F		28	
63A	17 08 1981	HC	360	400	M	21	25	
64A	17 08 1981	HC	360	400	M	19	23	
65A	17 08 1981	HC	360	550	M	15	18	
66A	17 08 1981	HC	310	325	M	16	15	

Table 2. continued.

Sample no. <sup>1</sup>	Date captured (D M Y)	Location captured <sup>2</sup>	Fork length (mm)	Weight (g)	Sex <sup>3</sup>	Age (whole otolith) (yr+)	Age (break & burn otolith) (yr+)	Fecundity
67A	17 08 1981	HC	310	300	M	16	15	
68A	17 08 1981	HC	380	500	M	22	23	
69A	17 08 1981	HC	320	350	M	16	15	
70A	17 08 1981	HC	336	350	F		25	
71A	17 08 1981	HC	326	375	M	16	23	
72A	17 08 1981	HC	305	275	M	16	15	
73A	17 08 1981	HC	320	350	M		15	
74A	17 08 1981	HC	270	200	F	16	15	
75A	17 08 1981	HC	300	300	F	15	15	
1R	18 08 1981	RR	604	1900	F		24	
2R	18 08 1981	RR	634	2450	M		24	
3R	18 08 1981	RR	380	375	M	18	25	
1B			347	334	F		24	
2B			330	343	M	15	15	
3B			317	307	F	17	17	
4B			379	370	M	20	26	
5B			552	1585	M	15		
6B			535	1469	M		26	
7B			335	313	F	18		
8B			348	404	M	19		
9B			319	302	M	15		
10B			333	317	M	17	16	
11B			340	299	M			
12B			372	440	M	20	22	
13B			323	308	F	17	20	
14B			363	365	M	19	21	
15B			388	361	M		30	
16B			394	355	M	18	26	
17B			369	437	M	17	21	
18B			404	550	F	10		
19B			482	962	F	20	19	
20B			504	836	F		28	
21B			351	413	M			
22B			326	296	F	20	22	
23B			327	317	M	16		
24B			343	377	M	19		
25B			346	357	M		18	
26B			559	1672	M	17	28	
27B			313	311	F	20		
28B			317	313	F	16	22	

Table 2. continued.

Sample no. <sup>1</sup>	Date captured (D M Y)	Location captured <sup>2</sup>	Fork length (mm)	Weight (g)	Sex <sup>3</sup>	Age (whole otolith) (yr+)	Age (break & burn otolith) (yr+)	Fecundity
29B			349	344	M	21	25	
30B			341	370	F	17	22	
31B			452	760	F	16	18	
32B			367	443	M			
33B			331	323	F		18	
34B			281	224	F	14		
35B			301	216	F	19	19	

<sup>1</sup> original sample number on otolith envelope.<sup>2</sup> see Fig. 1 for locations and abbreviation information.<sup>3</sup> M = male; F = female.

Table 3. Biological data for Arctic char captured in Lake Hazen in 1990.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date captured (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Sex <sup>5</sup>	Age (yr+)	Comments
9002001		08 05 1990	RR	AN	566	1708	M	24	
9002002		08 05 1990	RR	AN	279	211	F	12	
9002003		08 05 1990	RR	AN	277	160	M	11	
9002004		08 05 1990	RR	AN	379	519	F	17	
9002005		08 05 1990	RR	AN	375	508	M	24	
9002006		08 05 1990	RR	AN	356	425	M	16	
9002007		08 05 1990	RR	AN	289	230	M	14	
9002008		08 05 1990	RR	AN	292	223	M	10	
9002009		08 05 1990	RR	AN	359	406	M	13	
9002010		08 05 1990	RR	AN	362	419	F	14	
9002011		08 05 1990	RR	AN	572	1331	M	34	
9002012		09 05 1990	RR	AN	449	909	F	17	
9002013		09 05 1990	RR	AN	480	995	F	17	
9002014		09 05 1990	RR	AN	359	387	F	13	
9002015		09 05 1990	RR	AN	371	486	F	17	
9002016		09 05 1990	RR	AN	452	769	M	16	
9002017		09 05 1990	RR	AN	410	671		23	
9002018		10 05 1990	HC	AN	403	608	F	13	
9002019		10 05 1990	HC	AN	580	1884	M	21	
9002020		10 05 1990	HC	AN	386	542	F	9	
9002021		10 05 1990	HC	AN	420	767	M	13	
9002022		10 05 1990	HC	AN	357	333	M	22	
9002023		10 05 1990	HC	AN	362	448	M	22	
9002024		10 05 1990	HC	AN	326	365	M	19	
9002025		10 05 1990	HC	AN	320	280	M	14	
9002026		10 05 1990	HC	AN	311	260	F	26	
9002027		10 05 1990	HC	AN	464	865	M	21	
9002028		10 05 1990	HC	AN	534	1374	F	25	
9002029		10 05 1990	HC	AN	553	1426	F	30	
9002030		10 05 1990	HC	AN	370	482	M	22	
9002031		10 05 1990	HC	AN	427	646	M	25	
9002032		11 05 1990	HC	AN	388	499	M	11	
9002033		11 05 1990	HC	AN	487	1252	M	14	
9002034		11 05 1990	HC	AN	525	1383	M	14	
9002035		11 05 1990	HC	AN	447	815	M	20	
9002036		11 05 1990	HC	AN	503	1085	F	19	
9002037		11 05 1990	HC	AN	404	690	M	21	
9002038		11 05 1990	RR	AN	328	347	F	21	
9002039		11 05 1990	RR	AN	485	874	M	26	
9002040		11 05 1990	RR	AN	352	426	M	21	

Table 3. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date captured (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Sex <sup>5</sup>	Age (yr+)	Comments
9002041		11 05 1990	RR	AN	480	961	F	16	
9002042		11 05 1990	RR	AN	317	298	M	8	
9002043		11 05 1990	RR	AN	348	416	F	26	
9002044		11 05 1990	RR	AN	332	292	M	8	
9002045		11 05 1990	RR	AN	346	393	M	22	
9002046		09 05 1990	RR	ST	190			8	in 9002012 ST
9002047		11 05 1990	HC	ST	198			12	in 9002033 ST
9002048		06 05 1990	RR	ST	129			7	in 9002006 ST
9002049		10 05 1990	HC	ST	148			6	in 9002021 ST
9002050		11 05 1990	RR	ST	91			5	in 9002039 ST
9002051		11 05 1990	RR	ST	146			5	in 9002039 ST
9002052		10 05 1990	HC	ST	89			3	in 9002031 ST
9002053		08 05 1990	RR	ST	148			11	in 9002010 ST
9002054		08 05 1990	RR	ST	86			3	in 9002010 ST
9002055		10 05 1990	HC	ST	87			4	in 9002025 ST
9002056		08 05 1990	RR	ST	117			5	in 9002009 ST
9002106	27470	15 05 1990	RR	AN	433	596		18	
9002107	27471	15 05 1990	HC	AN	267	176		12	
9002108	27472	15 05 1990	HC	AN	295	239		12	
9002109	27473	15 05 1990	HC	AN	249	136		9	
9002110	27474	15 05 1990	HC	AN	207	74		9	
9002111	27475	15 05 1990	HC	AN	282	183		10	
9002112	27476	15 05 1990	HC	AN	183	48		8	

<sup>1</sup> original sample number on otolith envelope.<sup>2</sup> archive identification number of specimen in cold storage at Fisheries and Oceans Canada, Winnipeg.<sup>3</sup> see Fig. 1 for locations and abbreviation information.<sup>4</sup> AN = angling; ST = stomach content.<sup>5</sup> M = male; F = female.

Table 4. Biological data for Arctic char captured in Lake Hazen in 1992.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date captured (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
1		14 06 1992	HC	AN	511	1329			22			
2		14 06 1992	BC	AN	442	800		M				
3		14 06 1992	BC	AN	362	427		F				
4		14 06 1992	BC	AN	373	375		M	25			
5		14 06 1992	HC	AN	393	512		F	12			
6	38276	15 06 1992	BC	AN	203	66		M	9	0.1		
7	38275	15 06 1992	BC	AN	220	88		M		0.1		
8	38240	15 06 1992	BC	AN	250	123	L	F	12	0.9		
9	38241	15 06 1992	BC	AN	232	98	L	M	10	0.1		
10	38242	15 06 1992	BC	AN	303	212	L	F	11	0.9		
11	38227	15 06 1992	BC	AN	366	488	S	M	21	2.0		
12	38268	15 06 1992	BC	AN	239	122		M	11	0.2		
13	38228	15 06 1992	BC	AN	395	528	L	M	18	0.3		
14	38229	15 06 1992	BC	AN	449	922	L	F	13	5.9		
15	38258	15 06 1992	BC	AN	230	103		M	10	0.1		
16	38259	15 06 1992	BC	AN	271	162		F	16	1.5		
17	38260	15 06 1992	BC	AN	246	132		F	15	2.7	197	
18	38230	15 06 1992	BC	AN	468	1000		M	25	1.0		
19	38231	15 06 1992	BC	AN	366	472	S	M	24	1.7		
20	38238	16 06 1992	BC	GN	568	1651	L	M	26	3.8		
21	38235	16 06 1992	BC	GN	311	363	L	F	16	14.9	594	
22	38243	16 06 1992	BC	GN	287	242	S	F	17	2.3		
23	38264	16 06 1992	BC	GN	358	458	L	M	21	3.9		
24	38234	16 06 1992	BC	GN	357	367	S	M	26	1.0		
25	38244	16 06 1992	BC	GN	295	273	S	F	17	2.8		
26	38265	16 06 1992	BC	GN	378	575	S	M	23	1.5		
27	38245	16 06 1992	BC	GN	281	241	L	F	13	2.9		
28	38271	16 06 1992	BC	GN	206	85		F	14	2.2		
29	38255	16 06 1992	BC	GN	528	1244	L	F	23	22.6		
30	38246	16 06 1992	BC	GN	432	733	L	F	13	4.8		

Table 4. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date captured (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
31	38239	16 06 1992	BC	GN	510	1311	L	M	15	1.0		
32	38261	16 06 1992	BC	GN	363	470	S	F	26	19.8	774	
33	38266	16 06 1992	BC	GN	501	876	L	F	24	12.1		
34	38252	16 06 1992	BC	GN	292	242	S	F	16	8.5	325	
35	38262	16 06 1992	BC	GN	346	355	S	F	31	10.5	496	
36	38233	16 06 1992	BC	GN	341	388	S	M	19	0.9		
37	38253	16 06 1992	BC	GN	317	268	S	M	16	0.2		
38	38232	16 06 1992	BC	GN	321	362	S	F	21	15.3	504	
39	38254	16 06 1992	BC	GN	314	329	L	M	16	0.3		
40	38273	16 06 1992	BC	GN	172	41		M	9	0.1		
41	38274	16 06 1992	BC	GN	153	30		F	8	0.2		
42	38272	16 06 1992	BC	GN	139	21		F	7	0.2		
43	38225	16 06 1992	GR	AN	380	450	L	M	16	0.6		
44	38226	16 06 1992	GR	AN	510	1295	S	M	26	1.0		
45	38256	16 06 1992	BC	GN	528	1168	S	F	23	13.6		
46	38263	16 06 1992	BC	GN	501	925	L	F	22	12.8		
47	38237	16 06 1992	BC	GN	518	1275	L	F	19	94.5	2015	
48	38236	16 06 1992	BC	GN	358	431	S	F	22	2.6		
49	38249	16 06 1992	BC	AN	308	278	S	M	16	0.2		
50	38250	16 06 1992	BC	AN	252	154		F	8	0.4		
51	38251	16 06 1992	BC	AN	244	143	S	F	12	0.5		
52	38279	16 06 1992	BC	AN	210	78			11			
53	38280	16 06 1992	BC	AN	198	65		F	9	0.2		
54	38224	16 06 1992	HC	AN	330	273	L	M	12	0.2		
55	38278	15 06 1992	BC	AN	218	96		F	9	0.1		
56	38257	17 06 1992	BC	GN	494	1126	S	M	23	1.3		
57	38267	17 06 1992	BC	GN	540	1399	L	F	17	23.1		
58	38247	17 06 1992	BC	GN	502	1079	L	M	17	1.4		
59	38248	17 06 1992	BC	GN	409	548	L	F	12	3.1		
60	38270	17 06 1992	BC	GN	192	59		M	10	0.2		



Table 4. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date captured (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
61	38269	17 06 1992	BC	GN	183	47		F	9	0.5		
62	38277	17 06 1992	BC	GN	113	12		F	5	0.1		
63	38320	17 06 1992	RR	AN	371	419	S	M	26	2.5		
64	38322	17 06 1992	RR	AN	356	427	S	M	24	2.2		
65	38283	17 06 1992	RR	AN	609	1876	L	M	21	13.6		
66	38312	17 06 1992	RR	AN	397	596	L	F	15	4.8		
67	38323	17 06 1992	RR	AN	342	375	L	F	13	5.7		
68	38324	17 06 1992	RR	AN	362	415	S	M	21	1.8		
69	38321	17 06 1992	RR	AN	394	615	L	F	12	3.1		
70	38318	17 06 1992	RR	AN	446	780	L	F	18	5.5		
71	38325	17 06 1992	RR	AN	389	470	S	M	23	2.1		
72	38319	17 06 1992	RR	AN	410	725	L	F	11	4.1		
73	38313	17 06 1992	RR	AN	368	455	S	M	22	6.8		
74	38326	17 06 1992	RR	AN	362	483	S	M	25	9.9		
75	38314	17 06 1992	RR	AN	572	1537	L	F	35	83.0	2232	
76		17 06 1992	RR	AN	595	1758	L	F	23			
77	38288	18 06 1992	RR	AN	350	338	S	M	24	0.8		
78	38309	18 06 1992	RR	GN	390	481	S	M	25	2.1		
79	38329	18 06 1992	RR	GN	523	1351	L	M	25	4.0		
80	38310	18 06 1992	RR	GN	437	817	L	F	16	8.8		
81	38289	18 06 1992	RR	GN	409	467	S	M	28	1.0		
82	38291	18 06 1992	RR	GN	332	366	S	F	22	8.0	588	
83	38292	18 06 1992	RR	GN	298	232	L	M	13	1.0		
84	38290	18 06 1992	RR	GN	363	433	S	M	22	1.8		
85	38293	18 06 1992	RR	GN	352	318	S	F	27	0.2		
86	38285	18 06 1992	RR	GN	439	836	L	M	13	0.1		
87	38286	18 06 1992	RR	GN	436	786	L	F	12	3.2		
88	38294	18 06 1992	RR	GN	316	299	L	F	12	0.2		
89	38295	18 06 1992	RR	GN	336	375	S	F	26	2.9		
90	38296	18 06 1992	RR	GN	354	411	S	F	21	5.2		

Table 4. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date captured (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
91	38297	18 06 1992	RR	GN	356	476	L	M	18	1.6		
92	38298	18 06 1992	RR	GN	314	283	L	F	15	6.1	571	
93	38311	18 06 1992	RR	GN	501	1212	L	M	17	1.5		
94	38327	18 06 1992	RR	GN	495	1104	L	M	16	1.6		
95	38284	18 06 1992	RR	GN	591	2047	L	M		6.2		
96	38328	18 06 1992	RR	GN	633	2520	L	M		2.6		
97	38287	18 06 1992	RR	GN	348	425	S	F	18	4.0		
98	38315	18 06 1992	RR	GN	233	110		F	13	0.6		
99	38316	18 06 1992	RR	GN	168	41		F	7	0.1		
100	38317	18 06 1992	RR	GN	175	48		M	9	0.1		
101	38351	18 06 1992	MC	AN	590	2043	L	F	29	94.7	3539	
102	38337	18 06 1992	MC	AN	592	1862	L	M	22	3.2		
103	38352	18 06 1992	MC	AN	676	2669	L	M	27	85.5		
104	38353	18 06 1992	MC	AN	630	2004	L	M		25.6		
105	38354	18 06 1992	MC	AN	550	1426	L	M		37.2		
106	38355	18 06 1992	MC	AN	516	1337	L	F	20	13.0		
107	38356	18 06 1992	MC	AN	446	919	L	M	24	0.8		
108	38369	18 06 1992	MC	AN	478	979	L	F	22	14.3		
109	38357	18 06 1992	MC	AN	549	1508	L	F	27	102.2	2266	
110	38370	18 06 1992	MC	AN	367	396	L	F	15	3.3		
111	38358	18 06 1992	MC	AN	494	1208	L	M	17	1.5		
112	38305	19 06 1992	RR	GN	492	1056	L	M	21	0.4		
113	38306	19 06 1992	RR	GN	622	2112	L	M	18	2.9		
114	38331	19 06 1992	RR	GN	451	915	L	M	23	4.3		
115	38307	19 06 1992	RR	GN	452	836	L	M	19	0.3		
116	38299	19 06 1992	RR	GN	354	394	S	M	25	3.1		
117	38300	19 06 1992	RR	GN	337	421	S	F	23	16.5	708	
118	38308	19 06 1992	RR	GN	511	1236	L	F	23	38.7	2110	
119	38281	19 06 1992	RR	GN	489	1086	L	M	17	0.5		
120	38301	19 06 1992	RR	GN	361	428	S	M	24	2.0		

Table 4. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date captured (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
121	38302	19 06 1992	RR	GN	386	447	S	M	33	1.7		
122	38303	19 06 1992	RR	GN	382	552	S	M	24	1.8		
123	38304	19 06 1992	RR	GN	368	507	S	M	23	10.2		
124	38332	19 06 1992	RR	GN	100	10			5			
125	38373	20 06 1992	MC	GN	618	2050	L	M	24	47.0		
126	38361	20 06 1992	MC	GN	468	1024	L	M	15	0.5		
127	38338	20 06 1992	MC	GN	595	1880	L	F	23	39.7		
128	38333	20 06 1992	MC	GN	615	2217	L	M	22	50.5		
129	38362	20 06 1992	MC	GN	393	618		M	26	9.9		
130	38368	20 06 1992	MC	GN	560	1733	L	M	27	25.8		
131	38334	20 06 1992	MC	GN	608	1992	L	M	29	28.2		
132	38374	20 06 1992	MC	GN	498	1175	L	F	20	87.4	1754	
133	38363	20 06 1992	MC	GN	570	1768	L	M	27	58.0		
134	38364	20 06 1992	MC	GN	581	1766	L	M	20	6.0		
135	38365	20 06 1992	MC	GN	540	1486	L	M	18	1.8		
136	38335	20 06 1992	MC	GN	373	480	L	F	12	1.8		
137	38366	20 06 1992	MC	GN	427	714	L	M	16	0.6		
138	38336	20 06 1992	MC	GN	382	484	L	F	16	3.3		
139	38367	20 06 1992	MC	GN	378	495	L	M	12	0.2		
140	38339	20 06 1992	MC	GN	252	150	S	M	17	1.5		
141	38348	20 06 1992	MC	GN	197	59		F	6	0.1		
142	38347	20 06 1992	MC	GN	168	44		M	8	0.1		
143	38341	20 06 1992	MC	GN	182	53		M	7	0.1		
144	38375	20 06 1992	MC	GN	140	18			6			
145	38340	20 06 1992	MC	GN	239	102		M	8	0.1		
146	38350	20 06 1992	MC	GN	183	50		M	9	0.1		
147	38349	20 06 1992	MC	GN	182	47		F	6	0.1		
148	38343	20 06 1992	MC	GN	172	41		M	8	0.1		
149	38342	20 06 1992	MC	GN	183	51		M	6	0.1		
150	38344	20 06 1992	MC	GN	164	34			8			

Table 4. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date captured (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
151	38345	20 06 1992	MC	GN	171	45		F	8	0.1		
152	38346	20 06 1992	MC	GN	151	37		M	6	0.1		
153	38376	20 06 1992	MC	GN	158	27			7			
154	38377	20 06 1992	MC	GN	127	16			5			
155	38378	20 06 1992	MC	GN	100	9			5			
156	38379	20 06 1992	MC	GN	103	9			4			
157	38380	20 06 1992	MC	GN	105	7			6			
158	38359	20 06 1992	MC	AN	602	2108	L	M	28	21.6		
159	38360	20 06 1992	MC	AN	544	1303	L	M	22	2.0		
160	38371	20 06 1992	MC	AN	471	964	L	M	21	0.9		
161	38372	20 06 1992	MC	AN	365	413	L	F	15	3.7		
162	38330	20 06 1992	RR	AN	460	842	L	F	24	12.5		
163	38282	20 06 1992	RR	AN	562	1163	L	F	28	13.9		
164		20 06 1992	RR	AN	555	1620	L		17			
165	38423	20 06 1992	HN	AN	573	1670	L	M	27	2.3		
166	38424	20 06 1992	HN	AN	672	1836	L	M	25	4.7		
167	38425	20 06 1992	HN	AN	535	1459	L	M	27	3.8		
168	38387	20 06 1992	HN	AN	401	619	L	F	18	5.3		
169	38405	20 06 1992	HN	AN	566	1201	L	F	29	21.2		
170	38426	20 06 1992	HN	AN	391	533	L	M	23	1.8		
171	38427	20 06 1992	HN	AN	345	290	S	M	18	1.0		
172	38406	21 06 1992	HN	AN	602	1989	L	M	23	6.3		
173	38418	21 06 1992	HN	AN	635	2216	L	M	24	3.2		
174	38407	21 06 1992	HN	AN	619	2335	L	M	19	79.6		
175	38408	21 06 1992	HN	AN	590	1485	L	F	25	15.2		
176	38428	21 06 1992	HN	AN	520	1251	L	M	18	1.7		
177	38429	21 06 1992	HN	AN	611	2170	L	M	22	22.7		
178	38409	21 06 1992	HN	AN	573	1648	L	F	21	21.3		
179	38410	21 06 1992	HN	AN	578	1956	L	M	21	1.6		
180	38388	21 06 1992	HN	AN	579	1752	L	M	28	18.7		

Table 4. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date captured (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
181	38430	21 06 1992	HN	AN	565	1645	L	M	21	1.7		
182	38411	21 06 1992	HN	AN	569	2037	L	M	21	2.7		
183	38412	21 06 1992	HN	AN	503	1188	L	M	26	29.1		
184	38413	21 06 1992	HN	AN	576	2018	L	M	22	13.2		
185	38414	21 06 1992	HN	AN	573	1729	L	M	22	2.1		
186	38415	21 06 1992	HN	AN	610	2091	L	M		28.3		
187	38416	21 06 1992	HN	AN	642	2259	L	M	20	5.0		
188	38389	21 06 1992	HN	AN	495	1408		F	23	22.0		
189	38417	21 06 1992	HN	AN	490	1208	L	F	20	28.2	1563	
190	38431	21 06 1992	HN	AN	506	1220	L	M	14	1.6		
191	38390	21 06 1992	HN	AN	391	566	L	M	15	0.3		
192	38391	21 06 1992	HN	AN	418	725	L	M	15	0.5		
193	38392	21 06 1992	HN	AN	402	634	L	M	14	0.3		
194	38393	21 06 1992	HN	AN	419	735	L	F	14	3.4		
195	38394	21 06 1992	HN	AN	408	621	L	F	15	4.1		
196	38395	21 06 1992	HN	AN	345	366	S	F	24	2.6		
197	38381	21 06 1992	HN	AN	342	376	L	M	17	0.4		
198	38382	21 06 1992	HN	AN	356	432	S	F	21	4.8		
199	38396	21 06 1992	HN	AN	373	543	S	M	19	1.1		
200	38397	21 06 1992	HN	AN	341	346	S	F	23	2.9		
201	38398	21 06 1992	HN	AN	358	440	S	M	18	1.1		
202	38399	21 06 1992	HN	AN	352	409	S	F	23	4.0		
203	38400	21 06 1992	HN	AN	344	399	S	M	15	0.3		
204	38401	21 06 1992	HN	AN	370	387	S	F	23	3.9		
205	38383	21 06 1992	HN	AN	280	224	L	M	16	0.3		
206	38384	21 06 1992	HN	AN	325	318	S	F	23	3.5		
207	38432	21 06 1992	HN	AN	301	236	L	F	16	1.6		
208	38433	21 06 1992	HN	AN	344	277	S	F	20	3.2		
209	38385	21 06 1992	HN	AN	273	209	L	M	15	0.2		
210	38386	21 06 1992	HN	AN	300	248	L	M	14	0.3		

Table 4. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date captured (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
211	38419	21 06 1992	HN	AN	342	337		M	10	0.2		
212	38420	21 06 1992	HN	AN	350	389		F	17	5.3		
213	38421	21 06 1992	HN	AN	248	165		F	9	0.1		
214	38422	21 06 1992	HN	AN	270	149		F	10	0.4		
215	38402	21 06 1992	HN	AN	223	103		F		0.1		
216	38403	21 06 1992	HN	AN	231	115		M		0.1		
217	38404	21 06 1992	HN	AN	237	121		M		0.1		
218		21 06 1992	HN	AN	665	2852	L	M				
219		21 06 1992	HN	AN	599	2235	L	M				
220		21 06 1992	HN	ST	63				1			in ST of 38419
221		20 06 1992	HN	ST	212				8			in ST of 38423
222		21 06 1992	HN	ST	135				6			in ST of 38428
223		21 06 1992	HN	ST	105				5			in ST of 38428
224		21 06 1992	HN	ST	98				4			in ST of 38428
225		21 06 1992	HN	ST	115				8			in ST of 38388
226		21 06 1992	HN	ST	105				5			in ST of 38388
227		21 06 1992	HN	ST	114				5			in ST of 38388
228		21 06 1992	HN	ST	165				8			in ST of 38407
229		21 06 1992	HN	ST	110				6			in ST of 38415
230		21 06 1992	HN	ST	150			F	8			in ST of 38409
231		21 06 1992	HN	ST	154				5			in ST of 38410
232		21 06 1992	HN	ST	142			F	8			in ST of 38410
233		21 06 1992	HN	ST	161				7			in St of 38410
234		21 06 1992	HN	ST	96				4			in ST of 38418
235		21 06 1992	HN	ST	155				8			in ST of 38413
236		21 06 1992	HN	ST	168				8			in ST of 38408
237		21 06 1992	HN	ST	175				10			in ST of 38416
238		21 06 1992	HN	ST	143				10			in ST of 38411
239		21 06 1992	HN	ST	136				8			in ST of 38411
240		20 06 1992	MC	ST	174			M	11			in ST of 38368

Table 4. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date captured (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
241		20 06 1992	MC	ST	148			M	9			in ST of 38371
242		20 06 1992	MC	ST	120			F	7			in ST of 38371
243		20 06 1992	MC	ST	131			F	8			in ST of 38371
244		18 06 1992	RR	ST	160				9			in ST of 38310
245		18 06 1992	RR	ST	149			F	8			in ST of 38311
246		17 06 1992	RR	ST	95				6			in ST of 38319
247		17 06 1992	RR	ST	134			M	8			in ST of 38321
248		17 06 1992	RR	ST	65			M	2			in ST of 38321
249		17 06 1992	RR	ST	51				2			in ST of 38321
250		17 06 1992	RR	ST	87				7			in ST of 38323
251		17 06 1992	BC	ST	132				7			in ST of 38267
252		15 06 1992	BC	ST	74				4			in ST of 38229
253		20 06 1992	MC	ST	34				0			in ST of 38341
254		20 06 1992	MC	ST	122				7			in ST of 38336
255		19 06 1992	RR	ST	132				8			in ST of 38305
256		17 06 1992	RR	ST	29				0			in ST of 38283
257		17 06 1992	BC	ST	54				2			in ST of 38257
258		17 06 1992	BC	ST	141				8			in ST of 38257
259		17 06 1992	BC	ST	142				9			in ST of 38257

<sup>1</sup> original sample number on otolith envelope.<sup>2</sup> archive identification number of specimen in cold storage at Fisheries and Oceans Canada, Winnipeg.<sup>3</sup> see Fig. 1 for locations and abbreviation information.<sup>4</sup> AN = angling; GN = gillnet; ST = stomach content.<sup>5</sup> S = small; L = large as described by Reist et al. (1995).<sup>6</sup> M = male; F = female.

Table 5. Biological data for Arctic char captured by angling, radio-tagged, and released in Lake Hazen in 1995.

Sample no. <sup>1</sup>	Transmitter no.	Date tagged (D M Y)	Location tagged <sup>2</sup>	Fork length (mm)	Weight (g)	Form <sup>3</sup>	Comments
1	05-156	07 05 1995	HC	389	520	S	relocated <sup>4</sup>
2	01-142	07 05 1995	HC	426	680	L	
3	06-144	07 05 1995	HC	390	530	S	
4	25-156	07 05 1995	HC	594	2060	L	
5	01-141	07 05 1995	HC	535	1500	L	
6	05-144	07 05 1995	HC	362	390	S	
7	06-154	08 05 1995	HN	550	1670	L	relocated <sup>4</sup>
8	01-140	08 05 1995	HN	337	380	S	
9	25-154	08 05 1995	HN	349	450	S	
10	05-143	08 05 1995	HN	414	680	L	
11	01-139	08 05 1995	HN	381	490	S	
12	25-147	08 05 1995	HN	602	1970	L	
13	05-142	08 05 1995	HN	525	1450	L	
14	06-143	08 05 1995	HN	526	1410	L	relocated <sup>4</sup>
15	01-143	08 05 1995	HN	451	880	L	
16	25-142	08 05 1995	HN	398	610	S	
17	05-155	08 05 1995	HN	649	2950	L	
18	06-142	08 05 1995	HN	525	1250	L	
19	01-138	08 05 1995	HN	502	1240	L	
20	25-155	08 05 1995	HN	533	1390	L	
21	05-154	08 05 1995	HN	578	1960	L	relocated <sup>4</sup>
22	01-156	08 05 1995	HN	512	1240	L	
23	01-149	09 05 1995	MC	377	440	S	relocated <sup>4</sup>
24	05-141	09 05 1995	MC	676	2850	L	relocated <sup>4</sup>
25	06-153	09 05 1995	MC	364	460	S	
26	25-153	09 05 1995	MC	384	460	S	
27	01-148	09 05 1995	MC	464	870	L	
28	05-148	09 05 1995	MC	414	630	L	
29	06-140	09 05 1995	MC	423	730		
30	25-148	09 05 1995	MC	641	2400	L	relocated <sup>4</sup>
31	01-147	10 05 1995	BC	564	1450	L	
32	25-141	10 05 1995	BC	430	730	L	
33	06-155	10 05 1995	BC	372	410	S	relocated <sup>4</sup>
34	05-140	10 05 1995	BC	443	780	L	
35	01-146	10 05 1995	BC	378	440	S	
36	06-150	10 05 1995	BC	559	1620	L	relocated <sup>4</sup>
37	01-145	11 05 1995	RR	362	380	S	
38	05-153	11 05 1995	RR	545	1470	L	
39	25-146	11 05 1995	RR	433	830	L	
40	06-149	11 05 1995	RR	381	510	L	



Table 5. continued.

Sample no. <sup>1</sup>	Transmitter no.	Date tagged (D M Y)	Location tagged <sup>2</sup>	Fork length (mm)	Weight (g)	Form <sup>3</sup>	Comments
41	01-144	11 05 1995	RR	391	540	L	relocated <sup>4</sup>
42	05-152	12 05 1995	RR	374	480	S	
43	25-145	12 05 1995	RR	374	430	S	
44	01-154	12 05 1995	RR	534	1270	L	
45	06-156	12 05 1995	RR	538	1450	L	
46	05-150	13 05 1995	HN	504	1100	L	
47	01-155	13 05 1995	HN	577	1540	L	
48	06-148	13 05 1995	HN	516	1220	L	
49	25-140	13 05 1995	HN	630	2150	L	
50	05-149	13 05 1995	HN	639	2380	L	
51	01-153	13 05 1995	HN	610	1500	L	
52	25-139	13 05 1995	HN	542	1500	L	relocated <sup>4</sup>
53	06-147	13 05 1995	HN	544	1540	L	
54	05-147	13 05 1995	HN	531	1410	L	
55	01-151	13 05 1995	HN	492	1060	L	
56	06-141	13 05 1995	HN	523	1500	L	
57	25-144	13 05 1995	HN	574	1490	L	
58	05-146	13 05 1995	HN	552	1800	L	relocated <sup>4</sup>
59	01-150	13 05 1995	HN	575	1940	L	
60	06-146	13 05 1995	HN	630	1800	L	
61	05-151	13 05 1995	HN	685	3100	L	relocated <sup>4</sup>
62	25-143	13 05 1995	HN	583	1770	L	

<sup>1</sup> sample number to indicate number of fish radio-tagged.<sup>2</sup> see Fig. 1 for locations and abbreviation information.<sup>3</sup> S = small; L = large as described by Reist et al. (1995).<sup>4</sup> see Babaluk et al. (2001) for relocation details.

Table 6. Biological data for Arctic char captured by angling, T-bar-tagged, and released in Lake Hazen in 1995 (including recapture information).

Sample no. <sup>1</sup>	Tag no.	Date tagged/ recaptured (D M Y)	Location tagged/ recaptured <sup>2</sup>	Fork length (mm)	Weight (g)	Form <sup>3</sup>	Comments
1	A2251	07 05 1995	HC	481		L	
2	A2252 <sup>4</sup>	08 05 1995	HN	369	470	S	
3	A2253 <sup>4</sup>	08 05 1995	HN	468	900	L	
4	A2255 <sup>4</sup>	08 05 1995	HN	360	390	S	
5	A2254 <sup>4</sup>	08 05 1995	HN	442	830	L	
6	A2256 <sup>4</sup>	08 05 1995	HN	365	480	S	
7	A2257 <sup>4</sup>	08 05 1995	HN	373	520	S	
8	A2258 <sup>4</sup>	08 05 1995	HN	355	370	S	
9	A2259 <sup>4</sup>	09 05 1995	MC	355	440	L	
10	A2260 <sup>4</sup>	09 05 1995	MC	325	260	S	
11	A2261 <sup>4</sup>	09 05 1995	MC	274	190		
12	A2262 <sup>4</sup>	09 05 1995	MC	327	300	L	
13	A2263 <sup>4</sup>	09 05 1995	MC	265	160	L	
14	A2264 <sup>4</sup>	09 05 1995	MC	380	510	S	
15	A2265 <sup>4</sup>	09 05 1995	MC	357	450		
16	A2266 <sup>4</sup>	10 05 1995	BC	344	380		
17	A2267 <sup>4</sup>	10 05 1995	BC	417	650	L	
18	A2268 <sup>4</sup>	10 05 1995	BC	235	110		
19	A2269 <sup>4</sup>	10 05 1995	BC	299	270	L	
20	A2270 <sup>4</sup>	10 05 1995	BC	346	380		
21	A2271 <sup>4</sup>	10 05 1995	BC	368	430	L	
22	A2272 <sup>4</sup>	11 05 1995	RR	282	220		
23	A2273 <sup>4</sup>	11 05 1995	RR	349	440		
24	A2274	12 05 1995	RR	382	370	S	
25	A2276	12 05 1995	RR	377	320	S	
26	A2275	12 05 1995	RR	292	220	L	
27	A2277 <sup>4</sup>	13 05 1995	HN	331	360	S	
28	A2278 <sup>4</sup>	13 05 1995	HN	394	610	L	
29	A2279	13 05 1995	HN	338	340	S	
30	A2280 <sup>4</sup>	13 05 1995	HN	450	790	L	
31	A2281 <sup>4</sup>	13 05 1995	HN	352	410	S	died
32	A2282 <sup>4</sup>	13 05 1995	HN	387	460	S	
33	A2283 <sup>4</sup>	13 05 1995	HN	390	600	S	
34	A2284 <sup>4</sup>	13 05 1995	HN	352	390	L	
35	A2285	13 05 1995	HN	505	1310	L	
36	A2286	13 05 1995	HN	466	930	L	
37	A2287	13 05 1995	HN	390	620		
38	A2288	13 05 1995	HN	315	270	L	
39	A2289	13 05 1995	HN	356	430		
40	A2290	13 05 1995	HN	332	340		

Table 6. continued.

Sample no. <sup>1</sup>	Tag no.	Date tagged/ recaptured (D M Y)	Location tagged/ recaptured <sup>2</sup>	Fork length (mm)	Weight (g)	Form <sup>3</sup>	Comments
41	A2292	27 06 1995	BC				
42	A2294	27 06 1995	BC			L	
43	A2296	27 06 1995	BC			L	
44	A2297	27 06 1995	BC			L	
45	A2299	27 06 1995	BC			L	
46	A1152	02 07 1995	MC			L	
47	A1155	02 07 1995	MC			L	
48	A1156	02 07 1995	MC			L	
49	A1157	02 07 1995	MC			L	
50	A1158	02 07 1995	MC			L	
51	A1159	02 07 1995	MC			L	
52	A1160	02 07 1995	MC	616		L	
53	A1161	02 07 1995	MC	605		L	
54	A1162	02 07 1995	MC	652		L	
55	A1163	02 07 1995	MC	678		L	
56	A1164	02 07 1995	MC	517		L	
57	A1165	02 07 1995	MC	570		L	
58	A1166	02 07 1995	MC	621		L	
59	A1167	04 07 1995	BC	550		L	
60	A1168	04 07 1995	BC	460		L	
61	A1169	04 07 1995	BC	410			
62	A1170	04 07 1995	BC	570		L	
63	A1171	04 07 1995	BC	590		L	
64	A1172	04 07 1995	BC	510		L	
65	A1173	04 07 1995	BC	375			
66	A1174	04 07 1995	BC	550		L	
67	A1175	04 07 1995	BC	420		L	
68	A1176	06 07 1995	SG	430		L	
69	A1177	06 07 1995	SG	360		S	
70	A1178	06 07 1995	SG	350		S	
71	A1179	06 07 1995	SG	360			
72	A1180	06 07 1995	SG	560		L	
73	A1181	06 07 1995	SG	520		L	
74	A1182	06 07 1995	SG	580		L	
75	A1183	06 07 1995	SG	520		L	
76	A1184	06 07 1995	SG	555		L	
77	A1185	06 07 1995	SG			L	
78	A1186	06 07 1995	SG	650		L	
79	A1187	06 07 1995	SG	540		L	
80	A1188	06 07 1995	SG	525		L	

Table 6. continued.

Sample no. <sup>1</sup>	Tag no.	Date tagged/ recaptured (D M Y)	Location tagged/ recaptured <sup>2</sup>	Fork length (mm)	Weight (g)	Form <sup>3</sup>	Comments
81	A1189	06 07 1995	SG	503		L	
82	A1190	06 07 1995	SG	620		L	
83	A1191	06 07 1995	SG	555		L	
84	A1192	06 07 1995	SG	510		L	
85	A1193	06 07 1995	SG	390		L	
86	A1194	06 07 1995	SG	542		L	
87	A1195	06 07 1995	SG	605		L	
88	A1196	06 07 1995	SG	548	1350	L	died (M, 15+ yr)
89	A1197	06 07 1995	SG	571		L	
90	A1198	06 07 1995	SG	556	1675	L	died (M, 17+ yr)
91	A1001	06 07 1995	SG	520		L	
92	A1002	06 07 1995	SG	498		L	
93	A1003	06 07 1995	SG	515		L	
94	A1004	06 07 1995	SG	555		L	
95	A1005	06 07 1995	SG	505		L	
96	A1006	06 07 1995	SG	532		L	
97	A1008	06 07 1995	SG	422		L	
98	A1009	06 07 1995	SG	590		L	
99	A1010	06 07 1995	SG	603		L	
100	A1011	06 07 1995	SG	410	500	S	died (M, 24+ yr)
101	A1012	06 07 1995	SG			L	
102	A1013	06 07 1995	SG	465		L	
103	A1014	06 07 1995	SG	565		L	
104	A1015	06 07 1995	SG	490		L	
105	A1016	06 07 1995	SG	545		L	
106	A1017	06 07 1995	SG	624		L	
107	A1018	06 07 1995	SG	650		L	
108	A1019	06 07 1995	SG	580		L	
109	A1020	06 07 1995	SG	510		L	
110	A1021	06 07 1995	SG	640		L	
111	A1022	06 07 1995	SG	635		L	
112	A1023	06 07 1995	SG	590		L	
113	A1024	06 07 1995	SG	485		L	
114	A1025	06 07 1995	SG	368		L	
115	A1026	06 07 1995	SG	521		L	
116	A1027	08 07 1995	SG	470		L	
117	A1028	08 07 1995	SG	595		L	
118	A1029	08 07 1995	SG	555		L	
119	A1030	08 07 1995	SG	475		L	
120	A1031	08 07 1995	SG	635		L	

Table 6. continued.

Sample no. <sup>1</sup>	Tag no.	Date tagged/ recaptured (D M Y)	Location tagged/ recaptured <sup>2</sup>	Fork length (mm)	Weight (g)	Form <sup>3</sup>	Comments
121	A1033	08 07 1995	SG	530		L	
122	A1034	08 07 1995	SG	530		L	
123	A1035	08 07 1995	SG	563		L	
124	A1036	08 07 1995	SG	605		L	
125	A1037	08 07 1995	SG	505		L	
126	A1040	08 07 1995	SG	575		L	
127	A1041	08 07 1995	SG	488		L	
128	A1042	08 07 1995	SG	515		L	
129	A1045	08 07 1995	SG	505		L	
130	A1046	08 07 1995	SG	552		L	
131	A1047	08 07 1995	SG	477		L	
132	A1048	08 07 1995	SG	525		L	
133	A1049	08 07 1995	SG	532		L	
134	A1051	08 07 1995	SG	557		L	
135	A1052	08 07 1995	SG	480		L	
136	A1053	08 07 1995	SG	539		L	
137	A1054	08 07 1995	SG	530		L	
138	A1055	08 07 1995	SG	495		L	
139	A1056	08 07 1995	SG	605		L	
140	A1057	08 07 1995	SG	505		L	
141	A1058	08 07 1995	SG	540		L	
142	A1061	08 07 1995	SG	587		L	
143	A1062	08 07 1995	SG	620		L	
144	A1063	08 07 1995	SG	560		L	
145	A1064	08 07 1995	SG	485		L	
146	A1066	08 07 1995	SG	630		L	
147	A1067	08 07 1995	SG	473		L	
148	A1068	08 07 1995	SG	530		L	
149	A1070	08 07 1995	SG	505		L	
150	A1071	08 07 1995	SG	545		L	
151	A1072	08 07 1995	SG	537		L	
152	A1073	08 07 1995	SG	470		L	
153	A1074	08 07 1995	SG	584		L	
154	A1075	08 07 1995	SG	438		L	
155	A1076	08 07 1995	SG	544		L	
156	A1077	08 07 1995	SG	601		L	
157	A1078	08 07 1995	SG	602		L	
158	A1079	08 07 1995	SG	562		L	
159	A1080	08 07 1995	SG	490		L	
160	A1081	08 07 1995	SG	691		L	

Table 6. continued.

Sample no. <sup>1</sup>	Tag no.	Date tagged/ recaptured (D M Y)	Location tagged/ recaptured <sup>2</sup>	Fork length (mm)	Weight (g)	Form <sup>3</sup>	Comments
161	A1082	08 07 1995	SG	525		L	
162	A1083	08 07 1995	SG			L	
163	A1084	08 07 1995	SG			L	
164	A1085	08 07 1995	SG	455		L	
165	A1086	08 07 1995	SG	530		L	
166	A1087	08 08 1995	TR	595		L	
167	A1088	08 08 1995	TR	440		L	
168	A1089	08 08 1995	TR	675		L	
169	A1090	08 08 1995	TR	535		L	
170	A1091	08 08 1995	TR	663		L	
171	A1092	08 08 1995	TR	603		L	
172	A1093	08 08 1995	TR	532		L	
173	A1094	08 08 1995	TR	538		L	
174	A1095	08 08 1995	TR	562		L	
175	A1096	08 08 1995	TR	461		L	
176	A1097	08 08 1995	TR	470		L	
177	A1098	08 08 1995	TR	530		L	
178	A1099	08 08 1995	TR	587		L	
179	A1100	08 08 1995	TR	507		L	
180	A1250	08 08 1995	TR	530		L	
181	A1016	08 08 1995	TR	640		L	
182	A1248	08 08 1995	TR	455		L	
183	A1247	08 08 1995	TR	530		L	
184	A1246	08 08 1995	TR	635		L	
185	A1245	08 08 1995	TR	571		L	
186	A1244	08 08 1995	TR	607		L	
187	A1243	08 08 1995	TR	510		L	
	A1063	06 08 1996	HC	630		L	recaptured
	A1071	18 06 1998	HC			L	recaptured
	A1016	23 06 2000	MC			L	recaptured
	A1181	01 08 2001	HC	621	2140	L	recaptured

<sup>1</sup> sample number to indicate number of fish T-bar-tagged.<sup>2</sup> see Fig. 1 for locations and abbreviation information.<sup>3</sup> S = small; L = large as described by Reist et al. (1995).<sup>4</sup> fish injected with oxytetracycline.

Table 7. Biological data for Arctic char captured and retained from Lake Hazen in 1995.

Sample no. <sup>1</sup>	Date (D M Y)	Location captured <sup>2</sup>	Capture method <sup>3</sup>	Fork length (mm)	Weight (g)	Form <sup>4</sup>	Sex <sup>5</sup>	Age (yr+)
1	05 05 1995	HC	AN	588	1790	L	M	21
2	05 05 1995	HC	AN	475	990	L	M	14
3	05 05 1995	HC	AN	472	1020	L	F	17
4	07 05 1995	HC	AN	341	340	S	F	22
5	13 05 1995	HN	AN	455	760	L	F	19
6	13 05 1995	HN	AN	439	750	L	F	14
7	13 05 1995	HN	AN	375	500	S	M	23
8	13 05 1995	HN	AN	597	1860	L	M	22
9	13 05 1995	HN	AN	539	1380	L	F	30
10	13 05 1995	HN	AN	541	1410	L	F	23
11	13 05 1995	HN	AN	470	1010	L	F	14
12	08 07 1995	SG	AN	578	1875	L	M	
13	08 07 1995	SG	AN	612	1875	L	M	27
14	08 07 1995	SG	AN	522	1050	L	M	
15			ST	181				9
16			ST	211				11
17	05 05 1995	HC	ST	120				6
18	08 07 1995	SG	ST	158				7
19	08 07 1995	SG	ST	187				10

<sup>1</sup> original sample number on otolith envelope.<sup>2</sup> see Fig. 1 for locations and abbreviation information.<sup>3</sup> AN = angling; ST = stomach content.<sup>4</sup> S = small; L = large as described by Reist et al. (1995).<sup>5</sup> M = male; F = female.

Table 8. Biological data for Arctic char captured by angling, radio-tagged, and released in Lake Hazen in 1996.

Sample no. <sup>1</sup>	Transmitter no.	Date tagged (D M Y)	Location tagged <sup>2</sup>	Fork length (mm)	Weight (g)	Form <sup>3</sup>	Comments
1	05-145	24 05 1996	RR	624	2250	L	relocated <sup>4</sup>
2	06-138	24 05 1996	RR	556	1790	L	
3	01-161	24 05 1996	RR	409	570	L	
4	06-152	24 05 1996	RR	346	330	S	
5	01-158	24 05 1996	RR	369	420	S	relocated <sup>4</sup>
6	25-138	24 05 1996	RR	628	2570	L	
7	25-157	24 05 1996	RR	520	1230	L	
8	05-141	24 05 1996	RR	533	1370	S	
9	06-145	24 05 1996	RR	484	960	L	
10	05-161	24 05 1996	RR	461	790	L	
11	01-159	24 05 1996	RR	571	1720	L	
12	25-161	24 05 1996	RR	534	1320	L	
13	01-160	24 05 1996	RR	463	890	L	
14	25-158	24 05 1996	RR	334	320	S	
15	05-160	24 05 1996	RR	352	490	S	
16	06-160	24 05 1996	RR	561	1760	L	
17	25-159	24 05 1996	RR	338	370	S	
18	05-138	24 05 1996	RR	635	2620	L	
19	05-157	24 05 1996	RR	348	460	S	
20	06-151	25 05 1996	RR	464	840	L	
21	25-160	25 05 1996	RR	627	2180	L	
22	05-159	25 05 1996	RR	350	440	S	
23	05-158	25 05 1996	RR	397	480	S	
24	06-159	25 05 1996	RR	372	500	L	
25	06-158	25 05 1996	RR	379	500	L	
26	05-005	25 05 1996	RR	512	1420	L	
27	05-007	25 05 1996	RR	397	530	S	
28	05-006	25 05 1996	RR	380	370	S	
29	05-008	25 05 1996	RR	377	490	S	
30	05-009	25 05 1996	RR	470	940	L	
31	05-010	25 05 1996	RR	601	1760	L	
32	08-039	25 05 1996	RR	517	1140	L	
33	07-023	25 05 1996	RR	589	1760	L	relocated <sup>4</sup>
34	07-030	25 05 1996	RR	455	840	L	
35	06-019	25 05 1996	RR	374	470	L	
36	06-017	25 05 1996	RR	545	1530	L	
37	05-011	26 05 1996	HN	488	1040	L	
38	07-024	26 05 1996	HN	305	260	S	
39	06-016	26 05 1996	HN	351	400	L	
40	07-029	26 05 1996	HN	363	440	L	



Table 8. continued.

Sample no. <sup>1</sup>	Transmitter no.	Date tagged (D M Y)	Location tagged <sup>2</sup>	Fork length (mm)	Weight (g)	Form <sup>3</sup>	Comments
41	08-034	26 05 1996	HN	354	370	L	
42	05-012	26 05 1996	HN	340	330	S	
43	08-037	26 05 1996	HN	643	3060	L	
44	06-018	26 05 1996	HN	445	770	L	
45	06-021	26 05 1996	HN	362	390	L	
46	07-028	26 05 1996	HN	421	660	L	
47	07-025	27 05 1996	MC	494	1100	L	
48	07-026	27 05 1996	MC	672	2970	L	
49	08-031	27 05 1996	MC	674	2150	L	
50	06-015	27 05 1996	MC	646	2020	L	
51	08-038	27 05 1996	MC	496	1020	L	
52	08-035	27 05 1996	MC	351	340	S	
53	08-032	27 05 1996	MC	379	380	S	
54	08-033	27 05 1996	MC	595	1470	L	
55	07-027	27 05 1996	MC	520	1400	L	

<sup>1</sup> sample number to indicate number of fish radio-tagged.

<sup>2</sup> see Fig. 1 for locations and abbreviation information.

<sup>3</sup> S = small; L = large as described by Reist et al. (1995).

<sup>4</sup> see Babaluk et al. (2001) for relocation details.

Table 9. Biological data for Arctic char captured by angling, T-bar-tagged, and released in Lake Hazen in 1996 (including recapture information).

Sample no. <sup>1</sup>	Tag no.	Date tagged/ recaptured (D M Y)	Location tagged/ recaptured <sup>2</sup>	Fork length (mm)	Weight (g)	Form <sup>3</sup>	Comments
1	A1242 <sup>4</sup>	24 05 1996	RR	297	240		
2	A1241 <sup>4</sup>	24 05 1996	RR	387	540	S	
3	A1237 <sup>4</sup>	24 05 1996	RR	354	460	L	
4	A1235 <sup>4</sup>	24 05 1996	RR	328	330	S	
5	A1234 <sup>4</sup>	24 05 1996	RR	316	250	S	
6	A1231 <sup>4</sup>	24 05 1996	RR	332	340	S	
7	A1233 <sup>4</sup>	24 05 1996	RR	350	430	L	
8	A1236 <sup>4</sup>	24 05 1996	RR	322	310	L	
9	A1232 <sup>4</sup>	24 05 1996	RR	336	360	S	
10	A1230 <sup>4</sup>	24 05 1996	RR	326	340	S	
11	A1000 <sup>4</sup>	25 05 1996	RR				
12	A0990 <sup>4</sup>	25 05 1996	RR	351	340	S	
13	A1240 <sup>4</sup>	25 05 1996	RR	345	300	S	
14	A2150 <sup>4</sup>	26 05 1996	HN	307	250	S	
15	A2149 <sup>4</sup>	26 05 1996	HN	314	260	L	
16	A2148 <sup>4</sup>	26 05 1996	HN	261	170	S	
17	A1201 <sup>4</sup>	26 05 1996	HN	255	140	L	
18	A1202 <sup>4</sup>	26 05 1996	HN	223	100	L	
19	A1203 <sup>4</sup>	26 05 1996	HN	221	90	L	
20	A1204 <sup>4</sup>	26 05 1996	HN	265	170		
21	A1205 <sup>4</sup>	26 05 1996	HN	259	160		
22	A1206 <sup>4</sup>	26 05 1996	HN	317	320		
23	A1207 <sup>4</sup>	27 05 1996	MC	281	190		
24	A1208 <sup>4</sup>	27 05 1996	MC	439	720	L	
25	A1209 <sup>4</sup>	27 05 1996	MC	431	780	L	
26	A1210 <sup>4</sup>	27 05 1996	MC	333	340	S	
27	A1211 <sup>4</sup>	27 05 1996	MC	324	330	S	
28	A2401	30 06 1996	MC	625		L	
29	A2402	30 06 1996	MC	653		L	
30	A2403	30 06 1996	MC	500		S	
31	A2404	30 06 1996	MC	588		L	
32	A2405	30 06 1996	MC	535		S	
33	A2406	30 06 1996	MC	559		L	
34	A2407	30 06 1996	MC	490		S	
35	A2408	30 06 1996	MC	555			
36	A2409	30 06 1996	MC	476		S	
37	A2410	30 06 1996	MC	562		L	
38	A2411	30 06 1996	MC	554		L	
39	A2412	30 06 1996	MC	415		S	
40	A2413	30 06 1996	MC	485		S	

Table 9. continued.

Sample no. <sup>1</sup>	Tag no.	Date tagged/ recaptured (D M Y)	Location tagged/ recaptured <sup>2</sup>	Fork length (mm)	Weight (g)	Form <sup>3</sup>	Comments
41	A2414	30 06 1996	MC	516		L	
42	A2415	05 08 1996	HC	400		L	
43	A2416	05 08 1996	HC	470		L	
44	A2418	05 08 1996	HC	345		S	
45	A2419	05 08 1996	HC	630		L	
46	A2420	05 08 1996	HC	635		L	
47	A2421	06 08 1996	HC	338		S	
48	A2422	06 08 1996	HC	445		S	
49	A2423	06 08 1996	HC	452		L	
50	A2424	06 08 1996	HC	445		S	
51	A2425	06 08 1996	HC	398		S	
52	A2426	06 08 1996	HC	480		L	
53	A2427	06 08 1996	HC	520		L	
54	A2428	06 08 1996	HC	365		S	
55	A2429	07 08 1996	HC	420		L	
56	A2430	07 08 1996	HC	352		S	
57	A2431	07 08 1996	HC	549		S	
58	A2432	07 08 1996	HC	505		L	
59	A2433	07 08 1996	HC	364		S	
60	A2435	07 08 1996	HC	380		L	
61	A2436	07 08 1996	HC	465		L	
62	A2437	07 08 1996	HC	370		S	
63	A2438	07 08 1996	HC	472		L	
64	A2439	07 08 1996	HC	348		S	
65	A2440	07 08 1996	HC	375		S	
66	A2441	07 08 1996	HC	360		S	
67	A2444	08 08 1996	HC	374		S	
68	A2445	08 08 1996	HC	362		L	
	A1232 <sup>4</sup>	26 06 2001	HC			S	recaptured
	A2445	27 07 2005	TR/VR			L	recaptured

<sup>1</sup> sample number to indicate number of fish T-bar-tagged.<sup>2</sup> see Fig. 1 for locations and abbreviation information.<sup>3</sup> S = small; L = large as described by Reist et al. (1995).<sup>4</sup> fish injected with oxytetracycline.

Table 10. Biological data for Arctic char captured and retained from Lake Hazen in 1996.

Sample no. <sup>1</sup>	Date (D M Y)	Location captured <sup>2</sup>	Capture method <sup>3</sup>	Fork length (mm)	Weight (g)	Form <sup>4</sup>	Sex <sup>5</sup>	Age (yr+)
1	24 05 1996	RR	AN	374	430	S	F	24
2	24 05 1996	RR	AN	460	830	L	F	22
3	26 05 1996	HN	AN	312	290	S	F	23
4	27 05 1996	MC	AN	482	890	L	F	17
5	27 05 1996	MC	AN	323	330	S	F	20
6	27 05 1996	MC	AN	299	260	S	F	18
7	27 05 1996	MC	AN	386	500	S	F	24
8	24 05 1996	RR	AN	412	620	L	M	11
9	24 05 1996	RR	AN	459	860	L	M	19
10	25 05 1996	RR	AN	353	430	S	M	26
11	25 05 1996	RR	AN	362	400	S	M	22
12	26 05 1996	HN	AN	305	270		M	14
13	27 05 1996	MC	AN	611	1820	L	M	23
14	27 05 1996	MC	AN	400	520	L	M	13
15	27 05 1996	MC	AN	432	660	L	M	15
16	06 08 1996	HC	AN	363		S		

<sup>1</sup> original sample number on otolith envelope.<sup>2</sup> see Fig. 1 for locations and abbreviation information.<sup>3</sup> AN = angling.<sup>4</sup> S = small; L = large as described by Reist et al. (1995).<sup>5</sup> M = male; F = female.

Table 11. Biological data for Arctic char captured in Lake Hazen in 1998.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Fecundity	Comments
1		25 07 1998	RR	GN	353	330	S	F	36		
2		25 07 1998	RR	GN	375	460	L	M	15		
3		25 07 1998	RR	GN	397	520	L	M	21		
4		25 07 1998	RR	GN	253	154	L	M	11		
5		25 07 1998	RR	GN	226	92		M	12		
6		27 07 1998	JI	O	102				5		
7		29 07 1998	SG	GN	580	1690	L	F	24		
8		29 07 1998	SG	GN	613	1890	L	F	20		
9		29 07 1998	SG	ST	91	8			4		in ST of 7
10		29 07 1998	JI	AN	460	810		M	16		
11		29 07 1998	SG	GN	522	1360	L	F	24		
12		29 07 1998	SG	GN	190	54		M	11		
13		29 07 1998	SG	GN	364	530	S	F	23	338	
14		30 07 1998	BC	GN	609	1490	L	F	21		
15		30 07 1998	BC	GN	534	1280	L	F	18		
16		30 07 1998	BC	GN	510	1290	L	M	27		
17		30 07 1998	BC	GN	348	380	L	M	11		
18		30 07 1998	BC	GN	373	330	S	F	23		
19		30 07 1998	BC	GN	315	270	L	F	14		
20		30 07 1998	BC	GN	344	320	S	F	24		
21		30 07 1998	BC	GN	356	380	S	F	21		
22		30 07 1998	BC	GN	377	390	S	M	27		
23		30 07 1998	BC	GN	355	410	S	F	21		
24		30 07 1998	BC	GN	354	390	L	M	12		
25		30 07 1998	BC	GN	264	140	L	M	13		
26		30 07 1998	BC	GN	119	14			5		
27		30 07 1998	BC	GN	114	13			6		
28		30 07 1998	BC	GN	100	10			4		
29		30 07 1998	BC	GN	108	10			6		
30		31 07 1998	AB	GN	582	1710	L	F	22		

Table 11. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Fecundity	Comments
31		31 07 1998	AB	GN	374	370	S	F	23		
32		31 07 1998	AB	GN	362	300	S	F	24		
33		31 07 1998	AB	GN	355	370	S	M	25		
34		31 07 1998	AB	GN	496	930	L	F	17		
35		31 07 1998	AB	GN	214	80	L	F	10		
36		31 07 1998	AB	GN	350	450	S	F	21		
37		31 07 1998	AB	GN	358	360	S	F	27		
38		31 07 1998	HC	GN	109	10			4		
39		31 07 1998	HC	GN	406	500	L	F	15		
40		31 07 1998	HC	GN	396	580	S	M	23		
41		31 07 1998	HC	GN	347	360	S	F	22	498	
42		31 07 1998	AB	GN	136	34			7		
43		31 07 1998	AB	GN	110	14			4		
44		31 07 1998	AB	GN	100	10			5		
45		31 07 1998	AB	GN	106	11			5		
46		31 07 1998	AB	GN	99	9			4		
47		31 07 1998	AB	GN	116	14			5		
48		31 07 1998	AB	GN	118	16			7		
49		31 07 1998	AB	GN	106	12			4		
50		31 07 1998	AB	GN	110	15			5		
51		31 07 1998	AB	GN	107	12			5		
52		31 07 1998	AB	GN	100	10			5		
53		31 07 1998	AB	GN	109	12			5		
54		31 07 1998	AB	GN	99	9			5		
55		31 07 1998	AB	GN	104	11			5		
56		31 07 1998	AB	GN	125	17			6		
57		31 07 1998	AB	GN	172	46			10		
58		31 07 1998	SG	GN	192	63		F	12		
59		31 07 1998	SG	GN	179	49	D	M	12		
60		31 07 1998	SG	GN	177	48	D	M	11		

Table 11. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Fecundity	Comments
61		31 07 1998	SG	GN	172	42	D	F	13	81	
62		31 07 1998	SG	GN	195	70	S	F	9		
63		31 07 1998	SG	GN	106	9		F	5		
64		31 07 1998	SG	GN	242	103		F	13		
65		31 07 1998	SG	GN	563	1800	L	M	19		
66		31 07 1998	SG	GN	500	1070	L	M	20		
67		01 08 1998	SG	GN	355	370	S	F	22		
68		01 08 1998	SG	GN	352	390	S	F	22	918	
69		01 08 1998	SG	GN	309	300	L	M	16		
70		01 08 1998	SG	GN	232	104		F	11		
71		01 08 1998	SG	GN	206	75		M	5		
72		01 08 1998	SG	GN	130	19		F	6		
73		01 08 1998	SG	GN	108	10		F	5		
74		01 08 1998	SG	GN	100	8		M	4		
75		01 08 1998	RR	AN	435	810	L	F	16		
76		01 08 1998	RR	AN	533	1270	L	F	25		
77		01 08 1998	RR	AN	497	1040	L	F	23		
78		01 08 1998	RR	AN	630	1820	L	M	21		
79		01 08 1998	RR	O	52						
80		01 08 1998	RR	O	48				1		
81		01 08 1998	RR	O	37				1		
82		02 08 1998	SG	GN	524	1190	L	F	22	2199	25-157 (recap)
83		02 08 1998	SG	GN	644	2410	L	M	21		
84		02 08 1998	SG	GN	550	1590	L	M	19		
85		02 08 1998	SG	GN	524	1360	L	M	21		
86		02 08 1998	SG	GN	468	1030	L	F	17		
87		02 08 1998	SG	GN	369	420	L	M	12		
88		02 08 1998	SG	GN	346	360	L	M	12		
89		02 08 1998	SG	GN	383	490	S	M	29		
90		02 08 1998	SG	GN	370	400	S	M	24		

Table 11. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Fecundity	Comments
91		02 08 1998	SG	GN	371	410	S	M	26		
92		02 08 1998	SG	GN	347	300	S	F	34	531	
93		02 08 1998	SG	GN	350	420	S	M	23		
94		02 08 1998	SG	GN	275	182	L	F	10		
95		02 08 1998	SG	GN	104	10		F	5		
96		02 08 1998	SG	GN	98	8		M	4		
97		02 08 1998	SG	GN	96	8		F	4		
98		18 06 1998	HC	AN							A1071 (recap)
99	43504	25 07 1998	HC	GN	549	1805	L	F	20	2938	
100	43505	24 07 1998	HC	GN	531	1803	L	F	18	2226	
101	43506	24 07 1998	HC	GN	605	2202	L	M	26		
102	43507	24 07 1998	HC	GN	537	1160	L	M	23		
103	43508	24 07 1998	HC	GN	513	1289	L	F	18		
104	43509	25 07 1998	HC	GN	520	1305	L	F	19		
105	43510	25 07 1998	HC	GN	639	2479	L	M	23		
106	43511	24 07 1998	HC	GN	596	2021	L	M	19		
107	43512	24 07 1998	HC	GN	533	1293	L	F	17		
108	43513	24 07 1998	HC	GN	483	998	L	F	20		
109	43514	24 07 1998	HC	GN	363	479	S	M	17		
110		25 07 1998	HC	ST	90	5			5		in ST of 43509

<sup>1</sup> original sample number on otolith envelope.<sup>2</sup> archive identification number of specimen in cold storage at Fisheries and Oceans Canada, Winnipeg.<sup>3</sup> see Fig. 1 for locations and abbreviation information.<sup>4</sup> GN = gillnet; AN = angling; ST = stomach content; O = other.<sup>5</sup> S = small, L = large as described by Reist et al. (1995); D = dwarf (authors, unpublished data).<sup>6</sup> M = male; F = female.



Table 12. Biological data for Arctic char captured in Lake Hazen in 2001.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
1		26 06 2001	HC	AN								A1232 (recap)
2	47515	31 07 2001	HC	GN	631	2530	L	M	23	1.7		
3	47495	31 07 2001	HC	GN	509	1210	L	M	19	0.2		
4	47516	31 07 2001	HC	GN	597	1680	L	F	23	28.3		
5	47496	31 07 2001	HC	GN	500	1210	L	M	21	0.2		
6	47505	31 07 2001	HC	GN	392	500	L	M	18	0.1		
7	47429	31 07 2001	HC	GN	342	380	S	M	24	12.4		
8	47430	31 07 2001	HC	GN	425	640	L	M	16	0.3		
9	47431	31 07 2001	HC	GN	393	600	S	M	27	22.6		
10	47507	31 07 2001	HC	GN	351	380	S	F	22	49.8	747	
11	47497	31 07 2001	HC	GN	482	1060	L	F	17	7.4		
12	47432	31 07 2001	HC	GN	416	600	L	F	16	4.7		
13	47506	31 07 2001	HC	GN	318	270	L	M	14	0.1		
14	47508	31 07 2001	HC	GN	319	290		F	16	3.6		
15	47509	31 07 2001	HC	GN	296	240	L	M	11	0.2		
16	47556	31 07 2001	HC	GN	253	140	L	F	11	0.4		
17	47554	31 07 2001	HC	GN	247	130	L	M	13	0.1		
18	47562	31 07 2001	HC	GN	220	100	L	M	10	0.1		
19	47464	31 07 2001	HC	GN	170	49		M	10	2.0		
20	47555	31 07 2001	HC	GN	239	125		F	11	0.5		
21	47558	31 07 2001	HC	GN	212	84		F	13	0.3		
22	47457	31 07 2001	HC	GN	196	72	D	F	15	0.7		
23	47456	31 07 2001	HC	GN	224	105		F	14	2.5		
24	47561	31 07 2001	HC	GN	197	62		M	9	0.1		
25	47560	31 07 2001	HC	GN	178	53		F	8	0.7		
26	47460	31 07 2001	HC	GN	180	59		M	9	1.7		
27	47563	31 07 2001	HC	GN	225	92	L	F	7	0.2		
28	47564	31 07 2001	HC	GN	199	67		M	9	0.1		
29	47458	31 07 2001	HC	GN	210	80		M	10	0.2		
30	47462	31 07 2001	HC	GN	196	67			9			

Table 12. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
31	47557	31 07 2001	HC	GN	201	74	D	M	8	1.5		
32	47459	31 07 2001	HC	GN	210	82		M	13	0.1		
33	47461	31 07 2001	HC	GN	197	69	L	F	9	0.1		
34	47463	31 07 2001	HC	GN	176	51		M	8	0.1		
35	47455	31 07 2001	HC	GN	204	77	D	M	13	2.3		
36	47559	31 07 2001	HC	GN	214	89	L	F	9	0.2		
37	47546	01 08 2001	HC	GN	554	1770	L	F	21	20.6		
38	47547	01 08 2001	HC	GN	570	1280	L	F	33	14.7		
39	47528	01 08 2001	HC	GN	528	1030	L	M	34	2.8		
40	47518	01 08 2001	HC	GN	621	2140	L	M	22	4.0		A1181 (recap)
41	47517	01 08 2001	HC	GN	562	1410	L	F	22	13.2		
42	47529	01 08 2001	HC	GN	482	1050		M	30	1.4		
43	47548	01 08 2001	HC	GN	343	430	S	F	20	33.6	568	
44	47527	01 08 2001	HC	GN	392	540	L	M	13	0.2		
45	47524	01 08 2001	HC	GN	366	430	L	M	10	0.2		
46	47523	01 08 2001	HC	GN	381	560	S	M	19	13.9		
47	47525	01 08 2001	HC	GN	393	510	L	M	14	0.2		
48	47440	01 08 2001	HC	GN	342	430	S	M	17	0.3		
49	47526	01 08 2001	HC	GN	325	360	S	M	17	0.2		
50	47441	01 08 2001	HC	GN	278	190	L	F	8	0.6		
51	47442	01 08 2001	HC	GN	294	200	L	F	10	0.4		
52	47487	01 08 2001	HC	GN	247	130	S	M	13	0.1		
53	47485	01 08 2001	HC	GN	259	160	S	F	14	1.2		
54	47470	01 08 2001	HC	GN	221	100	S	M	12	0.2		
55	47484	01 08 2001	HC	GN	250	140	S	F	13	0.2		
56	47490	01 08 2001	HC	GN	250	135	S	M	14	0.1		
57	47443	01 08 2001	HC	GN	257	150	S	F	13	1.3		
58	47491	01 08 2001	HC	GN	219	92	L	M	11	3.7		
59	47486	01 08 2001	HC	GN	227	110	S	M	13	0.1		
60	47489	01 08 2001	HC	GN	221	97		M	13	0.1		

Table 12. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
61	47478	01 08 2001	HC	GN	219	94		F	10	0.1		
62	47488	01 08 2001	HC	GN	218	84	S	F	10	0.7		
63	47479	01 08 2001	HC	GN	195	69	D	M	10	1.3		
64	47483	01 08 2001	HC	GN	209	71		F	12	1.1		
65	47477	01 08 2001	HC	GN	178	48	D	M	12	1.8		
66	47473	01 08 2001	HC	GN	166	41	D	F	8	0.4		
67	47465	01 08 2001	HC	GN	202	78	D	F	10	3.6		
68	47469	01 08 2001	HC	GN	239	120	S	M	12	0.1		
69	47475	01 08 2001	HC	GN	151	31		F	6	0.1		
70	47520	01 08 2001	HC	GN	171	44	D	F	10	1.4		
71	47472	01 08 2001	HC	GN	179	47		M	6	0.1		
72	47474	01 08 2001	HC	GN	177	51	D	M	10	2.7		
73	47476	01 08 2001	HC	GN	207	72	S	F	13	0.2		
74	47531	02 08 2001	SG	GN	475	880	L	F	24	11.5		
75	47511	02 08 2001	SG	GN	494	1230	L	M	14	0.2		
76		02 08 2001	SG	GN	575	1760	L	F	19			
77	47530	02 08 2001	SG	GN	500	1190	L	F	13	0.8		
78	47533	02 08 2001	SG	GN	361	540	S	M	20	16.0		
79	47512	02 08 2001	SG	GN	383	540	S	M	22	17.2		
80	47532	02 08 2001	SG	GN	364	440	S	M	21	10.0		
81	47534	02 08 2001	SG	GN	380	490	L	M	13	0.2		
82	47510	02 08 2001	SG	GN	424	630	L	M	15	0.1		
83	47412	02 08 2001	SG	GN	307	240	L	F	9	1.3		
84	47535	02 08 2001	SG	GN	321	300	L	F	9	0.7		
85	47415	02 08 2001	SG	GN	335	310	L	M	11	0.5		
86	47416	02 08 2001	SG	GN	347	390	S	M	26	0.5		
87	47414	02 08 2001	SG	GN	290	230		F	14	1.7		
88	47413	02 08 2001	SG	GN	339	330	S	F	22	1.7		
89	47541	02 08 2001	SG	GN	271	190	S	F	16	13.6	333	
90	47542	02 08 2001	SG	GN	282	210	S	F	15	16.6	372	

Table 12. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
91	47545	02 08 2001	SG	GN	286	230		M	15	0.2		
92	47544	02 08 2001	SG	GN	291	220	S	M	18	0.4		
93	47433	02 08 2001	SG	GN	248	130	S	M	11	0.1		
94	47436	02 08 2001	SG	GN	249	140	D	F	14	6.7		
95	47543	02 08 2001	SG	GN	272	180		F	9	0.4		
96	47435	02 08 2001	SG	GN	245	130		F	12	2.0		
97	47438	02 08 2001	SG	GN	236	120		M	14	4.5		
98	47540	02 08 2001	SG	GN	248	140		F	13	33.7		
99	47434	02 08 2001	SG	GN	231	110		M	13	0.1		
100	47437	02 08 2001	SG	GN	235	110		M	13	0.1		
101	47439	02 08 2001	SG	GN	222	100		F	11	3.5		
102	47480	02 08 2001	SG	GN	207	74	D	F	18	1.2		
103	47471	02 08 2001	SG	GN	216	83		M	9	0.2		
104	47467	02 08 2001	SG	GN	193	65		F	11	2.1		
105	47468	02 08 2001	SG	GN	189	60		F	9	0.2		
106	47466	02 08 2001	SG	GN	194	67		F	10	0.1		
107	47482	02 08 2001	SG	GN	180	51		M	10	0.2		
108	47481	02 08 2001	SG	GN	171	46		F	8	0.1		
109	47519	02 08 2001	SG	GN	120	16			7			
110	47504	03 08 2001	BC	GN	530	1490	L	M	16	0.3		
111	47502	03 08 2001	BC	GN	527	1260	L	F	20	13.2		
112	47503	03 08 2001	BC	GN	458	940	L	M	15	0.2		
113	47493	03 08 2001	BC	GN	485	1180	L	M	17	0.2		
114	47550	03 08 2001	BC	GN	644	2230	L	M	19	2.5		
115	47500	03 08 2001	BC	GN	366	490	L	F	16	0.2		
116	47499	03 08 2001	BC	GN	424	730	L	F	15	3.8		
117	47494	03 08 2001	BC	GN	365	520	S	M	24	14.4		
118	47492	03 08 2001	BC	GN	373	480	S	F	24	35.3	512	
119	47537	03 08 2001	BC	GN	376	510	S	M	22	11.2		
120	47536	03 08 2001	BC	GN	341	420	S	M	22	19.2		

Table 12. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
121	47444	03 08 2001	BC	GN	344	410	S	M	19	14.6		
122	47539	03 08 2001	BC	GN	345	410	S	M	17	0.8		
123	47538	03 08 2001	BC	GN	316	340	S	M	25	0.4		
124	47445	03 08 2001	BC	GN	293	290	S	F	17	26.5	378	
125	47446	03 08 2001	BC	GN	329	350	S	F	20	1.9		
126	47549	03 08 2001	BC	GN	690	2630	L	M	28	3.7		
127	47425	03 08 2001	BC	GN	357	440	L	M	20	1.2		
128	47428	03 08 2001	BC	GN	399	550	L	F	19	4.3		
129	47426	03 08 2001	BC	GN	347	420		F	16	4.0		
130	47501	03 08 2001	BC	GN	426	790	L	M	13	0.2		
131	47498	03 08 2001	BC	GN	462	820	L	M	19	0.2		
132	47447	03 08 2001	BC	GN	384	540		F	22	6.3		
133	47427	03 08 2001	BC	GN	327	360	S	F	20	3.8		
134	47450	03 08 2001	BC	GN	309	320	S	F	17	33.7	498	
135	47451	03 08 2001	BC	GN	276	200		F	13	0.6		
136	47454	03 08 2001	BC	GN	241	140	S	M	11	0.2		
137	47449	03 08 2001	BC	GN	215	97		F	9	0.2		
138	47448	03 08 2001	BC	GN	235	105	L	M	7	0.1		
139	47453	03 08 2001	BC	GN	170	52	D	F	9	0.1		
140	47452	03 08 2001	BC	GN	127	17		F	4	0.1		
141	47403	05 08 2001	JI	GN	337	360	S	F	22	2.6		
142	47402	05 08 2001	JI	GN	363	480	S	F	20	32.2	529	
143	47401	05 08 2001	JI	GN	347	460	S	F	21	4.0		
144	47409	05 08 2001	JI	GN	344	330	S	F	27	28.6	624	
145	47411	05 08 2001	JI	GN	305	270	S	F	23	1.5		
146	47417	05 08 2001	JI	GN	371	400	S	M	24	1.1		
147	47408	05 08 2001	JI	GN	310	280	S	M	14	2.0		
148	47551	05 08 2001	JI	GN	348	410	S	F	23	39.9	615	
149	47419	05 08 2001	JI	GN	345	440	S	F	22	45.7	631	
150	47420	05 08 2001	JI	GN	358	430	S	M		0.9		

Table 12. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
151	47410	05 08 2001	Jl	GN	331	380	S	M	22	10.4		
152	47400	05 08 2001	Jl	GN	354	390	S	M	17	0.5		
153	47418	05 08 2001	Jl	GN	401	580	S	M	16	0.6		
154	47552	05 08 2001	Jl	GN	373	500	S	F	25	10.6		
155	47513	05 08 2001	Jl	GN	518	1310	L	M	24	1.8		
156	47553	05 08 2001	Jl	GN	516	1270	L	F	19	153.4	1960	
157	47514	05 08 2001	Jl	GN	591	2330	L	F	19	27.2		
158	47404	06 08 2001	HC	GN	367	490	S	F	24	44.1	824	
159	47422	06 08 2001	HC	GN	340	360	S	M	20	0.5		
160	47406	06 08 2001	HC	GN	320	320	S	F	17	3.9		
161	47407	06 08 2001	HC	GN	306	300	S	F	15	17.6	512	
162	47423	06 08 2001	HC	GN	328	400	S	M	20	12.8		
163	47405	06 08 2001	HC	GN	306	270	S	F	15	2.6		
164	47424	06 08 2001	HC	GN	341	460	S	M	20	19.3		
165	47421	06 08 2001	HC	GN	377	430	S	F	28	11.0		
166	47521	06 08 2001	HC	GN	414	660	L	M	12	0.2		
167	47522	06 08 2001	HC	GN	615	2340	L	M	18	82.0		
168	47568	07 08 2001	MC	AN	683	3380	L	M	23	77.4		
169	47571	07 08 2001	MC	AN	666	3000	L	M	22	59.0		
170	47566	07 08 2001	MC	AN	616	2770	L	M	22	59.1		
171	47569	07 08 2001	MC	AN	615	1920	L	M	25	44.4		
172	47565	07 08 2001	MC	AN	622	2480	L	M	20	47.0		
173	47567	07 08 2001	MC	AN	602	2060	L	F	24	373.2	3347	
174		07 08 2001	MC	AN	560	1680	L	F	25		3030	
175		07 08 2001	MC	AN	603	2120	L	F	27		2873	
176		07 08 2001	MC	AN	527	1490	L	F	24		2691	
177		07 08 2001	MC	AN	516	1240	L	F	22		1813	
178		07 08 2001	MC	AN	515	1310	L	F	20		2117	
179		07 08 2001	MC	AN	543	1470	L	F	21		2330	
180		07 08 2001	MC	AN	502	1230	L	F	20		1918	

Table 12. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
181	47570	07 08 2001	MC	AN	508	1240	L	F	20			
182		07 08 2001	MC	AN	351	340	S	F	18	0.6		
183		13 08 2001	CC	ST	158		D	M	10			
184		13 08 2001	CC	ST	167		D	F	10			
185		13 08 2001	CC	ST	165			F	9			
186		05 08 2001	HC	EL	68.0	2.92		M	2			
187		05 08 2001	HC	EL	75.4	3.92		M	3			
188		05 08 2001	HC	EL	68.3	2.88			2			
189		05 08 2001	HC	EL	65.5	2.08		F	3			
190		05 08 2001	HC	EL	68.3	3.52		F	3			
191		05 08 2001	HC	EL	63.2	1.95			2			
192		05 08 2001	HC	EL	65.5	2.32			2			
193		05 08 2001	HC	EL	64.7	1.81			2			
194		05 08 2001	HC	EL	65.9	2.15		M	2			
195		05 08 2001	HC	EL	67.0	2.15			2			
196		08 08 2001	HC	EL	44.3	0.79			1			
197		08 08 2001	HC	EL	52.1	1.05		F	1			
198		08 08 2001	HC	EL	60.8	1.77			2			
199		08 08 2001	HC	EL	46.9	0.90			1			
200		08 08 2001	HC	EL	86.1	5.29		M	3			
201		08 08 2001	HC	EL	87.3	5.42			3			
202		08 08 2001	HC	EL	44.2	0.65			1			
203		08 08 2001	HC	EL	46.7	0.78			1			
204		08 08 2001	HC	EL	50.4	1.12			1			
205		08 08 2001	HC	EL	66.8	2.38		M	2			
206		08 08 2001	HC	EL	49.7	0.80			1			
207		08 08 2001	HC	EL	46.6	0.74			1			
208		08 08 2001	HC	EL	61.3	1.89			2			
209		08 08 2001	HC	EL	59.4	1.82			2			
210		05 08 2001	HC	EL	33.0	0.20			0			

Table 12. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
211		05 08 2001	HC	EL	31.0	0.22			0			
212		05 08 2001	HC	EL	28.8	0.17			0			
213		05 08 2001	HC	EL	33.8	0.28			0			
214		05 08 2001	HC	EL	31.0	0.20			0			
215		05 08 2001	HC	EL		0.04			0			
216		05 08 2001	HC	EL	33.7	0.19			0			
217		05 08 2001	HC	EL	26.5	0.10			0			
218		05 08 2001	HC	EL	33.9	0.26			0			
219		05 08 2001	HC	EL	34.9	0.25			0			
220		05 08 2001	HC	EL	30.9	0.15			0			
221		05 08 2001	HC	EL	31.0	0.13			0			
222		05 08 2001	HC	EL	33.2	0.22			0			
223		05 08 2001	HC	EL	28.8	0.10			0			
224		05 08 2001	HC	EL	30.9	0.16			0			
225		05 08 2001	HC	EL	31.6	0.13			0			
226		05 08 2001	HC	EL	32.0	0.15			0			
227		05 08 2001	HC	EL	33.7	0.22			0			
228		05 08 2001	HC	EL	31.6	0.15			0			
229		05 08 2001	HC	EL	33.2	0.19			0			
230		05 08 2001	HC	EL	36.2	0.32			0			
231		05 08 2001	HC	EL	32.7	0.19			0			
232		05 08 2001	HC	EL	36.7	0.25			0			
233		05 08 2001	HC	EL	32.6	0.15			0			
234		05 08 2001	HC	EL	32.1	0.16			0			
235		05 08 2001	HC	EL	34.4	0.21			0			
236		05 08 2001	HC	EL	30.4	0.12			0			
237		05 08 2001	HC	EL	29.7	0.13			0			
238		05 08 2001	HC	EL	27.6	0.09			0			
239		05 08 2001	HC	EL	36.1	0.24			0			
240		05 08 2001	HC	EL	36.6	0.34			0			



Table 12. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
241		08 08 2001	HC	EL	32.1	0.15			0			
242		08 08 2001	HC	EL	34.4	0.29			0			
243		08 08 2001	HC	EL	26.4	0.10			0			
244		08 08 2001	HC	EL	31.6	0.23			0			
245		08 08 2001	HC	EL	29.6	0.15			0			
246		08 08 2001	HC	EL	42.2	0.52			1			
247		08 08 2001	HC	EL	34.4	0.22			0			
248		08 08 2001	HC	EL	34.4	0.25			0			
249		08 08 2001	HC	EL	27.6	0.13			0			
250		08 08 2001	HC	EL	32.1	0.21			0			
251		08 08 2001	HC	EL	29.9	0.18			0			
252		08 08 2001	HC	EL	28.7	0.13			0			
253		08 08 2001	HC	EL	29.6	0.16			0			
254		08 08 2001	HC	EL	30.4	0.15			0			
255		08 08 2001	HC	EL	31.0	0.16			0			
256		05 08 2001	HC	EL	45.0	0.67			1			
257		05 08 2001	HC	EL	52.0	1.22		M	1			
258		05 08 2001	HC	EL	51.3	0.99		F	1			
259		05 08 2001	HC	EL	58.7	1.37		F	2			
260		05 08 2001	HC	EL	41.7	0.46			1			
261		05 08 2001	HC	EL	51.3	0.88		M	1			
262		05 08 2001	HC	EL	48.0	0.76			1			
263		05 08 2001	HC	EL	58.7	1.31		M	1			
264		05 08 2001	HC	EL	41.1	0.55		F	1			
265		05 08 2001	HC	EL	46.8	0.69			1			
266		05 08 2001	HC	EL	41.2	0.49			1			
267		05 08 2001	HC	EL	51.2	0.87			1			
268		05 08 2001	HC	EL	54.6	1.00			2			
269		05 08 2001	HC	EL	43.9	0.55			1			
270		05 08 2001	HC	EL	58.1	1.41			1			

Table 12. continued.

Sample no. <sup>1</sup>	Processing no. <sup>2</sup>	Date (D M Y)	Location captured <sup>3</sup>	Capture method <sup>4</sup>	Fork length (mm)	Weight (g)	Form <sup>5</sup>	Sex <sup>6</sup>	Age (yr+)	Gonad weight (g)	Fecundity	Comments
271		11 08 2001	HC	EL	30.3	0.13			0			
272		11 08 2001	HC	EL	49.4	0.62			1			
273		11 08 2001	HC	EL	36.7	0.17			0			
274		11 08 2001	HC	EL	60.8	1.43			1			
275		11 08 2001	HC	EL	63.1	1.83			2			
276		11 08 2001	HC	EL	32.7	0.16			0			
277		11 08 2001	HC	EL	49.0	0.53			1			
278		11 08 2001	HC	EL	45.5	0.56			1			
279		11 08 2001	HC	EL	69.4	2.51			2			
280		11 08 2001	HC	EL	52.0	0.79			1			
281		11 08 2001	HC	EL	64.3	2.12			2			
282		11 08 2001	HC	EL					0			
283		11 08 2001	HC	EL	38.2	0.29			0			
284		11 08 2001	HC	EL	36.7	0.28			0			
285		11 08 2001	HC	EL	51.3	0.89			1			
286		11 08 2001	HC	EL	34.3	0.15			0			
287		11 08 2001	HC	EL	64.3	1.74			2			
288		11 08 2001	HC	EL	35.0	0.19			0			
289		11 08 2001	HC	EL	67.7	2.59			2			
290		11 08 2001	HC	EL	75.6	3.54			3			
291		11 08 2001	HC	EL	47.4	0.51			1			
292		11 08 2001	HC	EL		0.18			0			
293		11 08 2001	HC	EL	54.5	0.84			2			
294		11 08 2001	HC	EL					0			

<sup>1</sup> original sample number on otolith envelope.<sup>2</sup> archive identification number of specimen in cold storage at Fisheries and Oceans Canada, Winnipeg.<sup>3</sup> see Fig. 1 for locations and abbreviation information.<sup>4</sup> GN = gillnet; AN = angling; EL = electro-fisher; ST = stomach content.<sup>5</sup> S = small, L = large as described by Reist et al. (1995); D = dwarf (authors, unpublished data).<sup>6</sup> M = male; F = female.

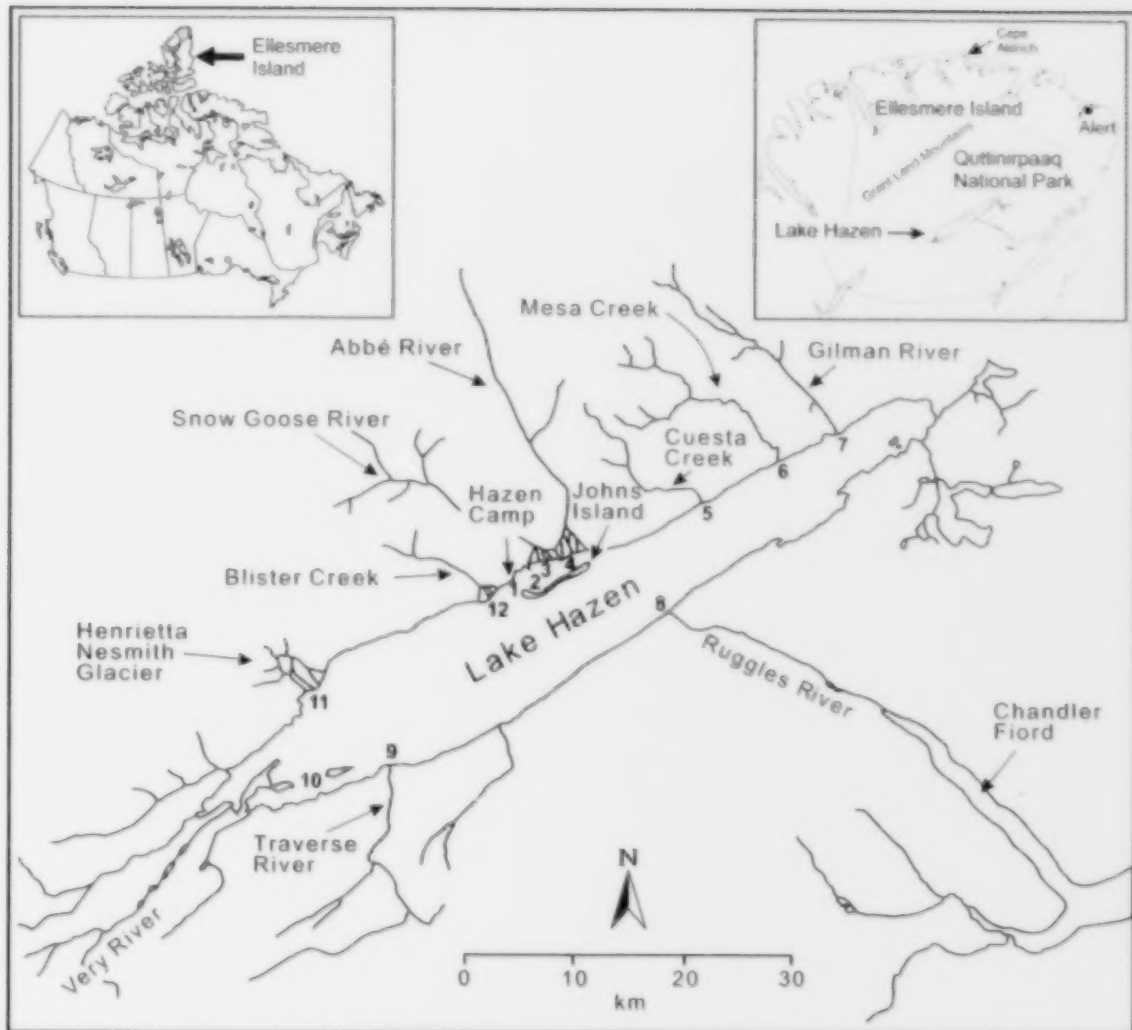


Figure 1. Map of Lake Hazen, Quttinirpaaq National Park, Nunavut showing general collection areas for Arctic char: 1 = Hazen Camp (HC), 2 = Johns Island (JI), 3 = Snow Goose River (SG), 4 = Abbé River (AB), 5 = Cuesta Creek (CC), 6 = Mesa Creek (MC), 7 = Gilman River (GR), 8 = Ruggles River (RR), 9 = Traverse River (TR), 10 = Traverse River/Very River (TR/VR), 11 = Henrietta Nesmith Glacier (HN) and 12 = Blister Creek (BC).

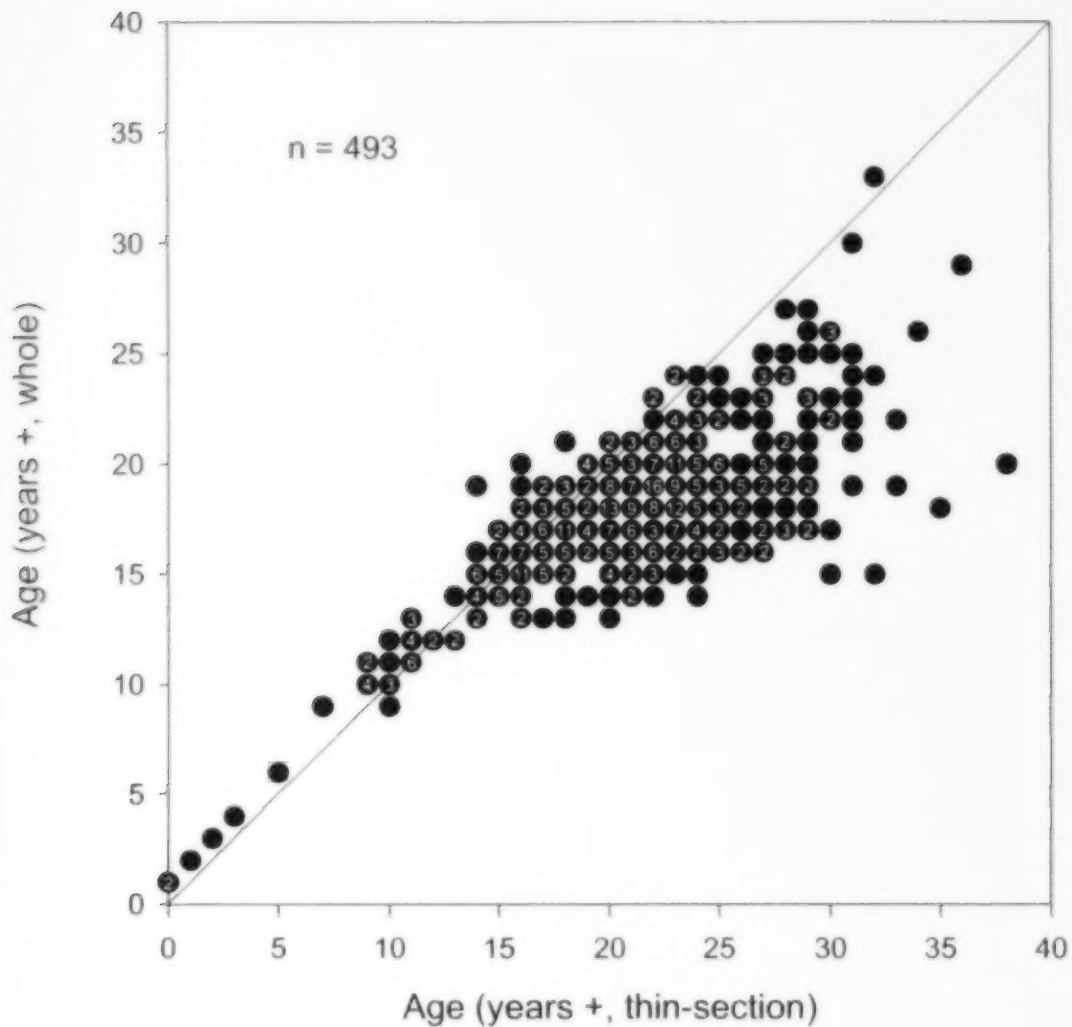


Figure 2. Relationship between 1958 Lake Hazen Arctic char otolith ages determined by the "whole" method (original ages) and "thin-section" method (revised ages). Dots are individual fish except where indicated by number. Points on the diagonal line indicate thin-section age equals whole age.

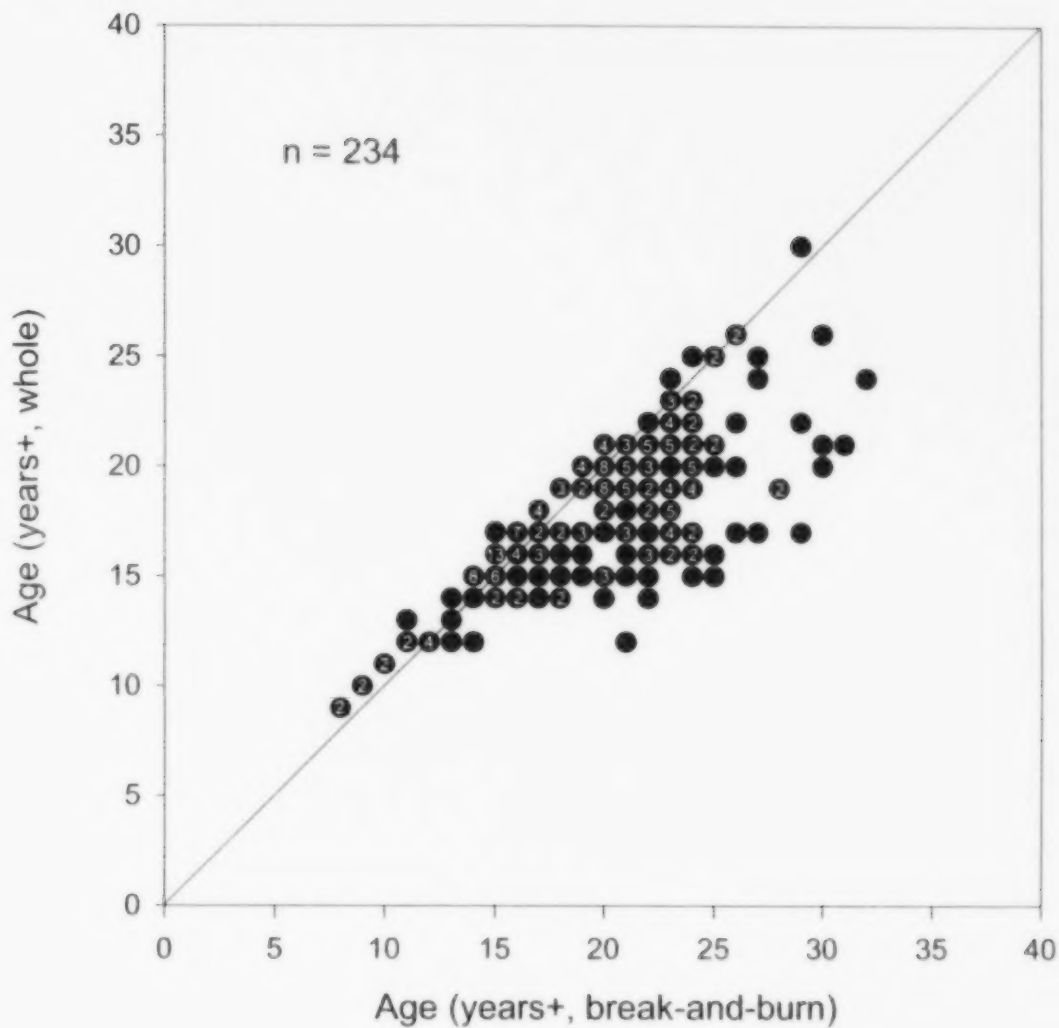


Figure 3. Relationship between 1981 Lake Hazen Arctic char otolith ages determined by the "whole" method (original ages) and "break-and-burn" method (revised ages). Dots indicate individual fish except where indicated by number. Points on the diagonal line indicate thin-section age equals whole age.

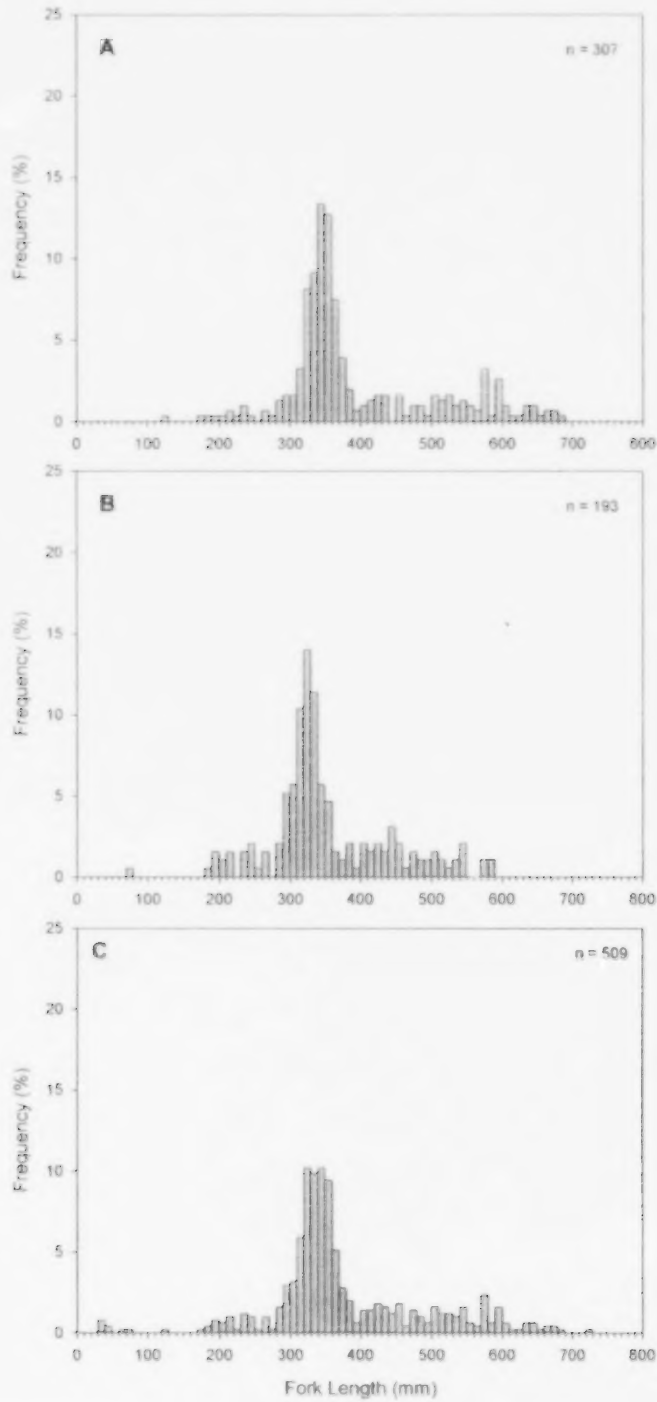


Figure 4. Length-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1958.

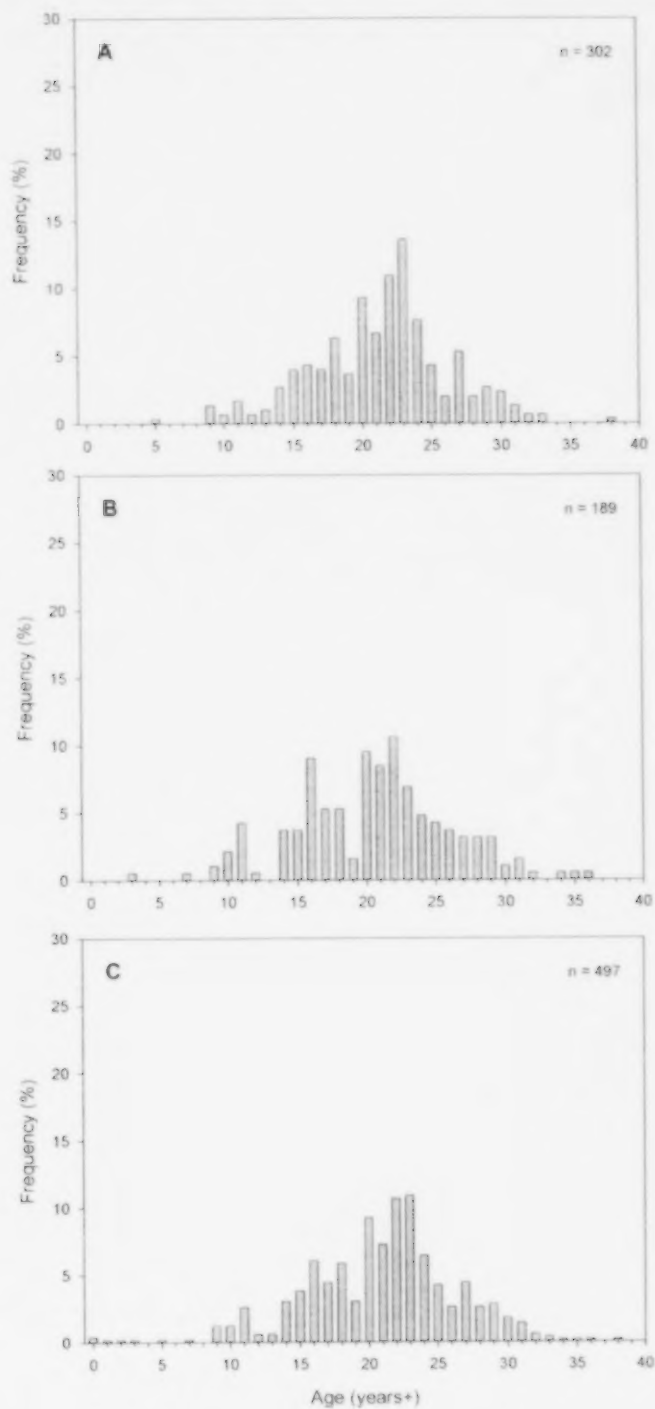


Figure 5. Age-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1958 using the revised ages.

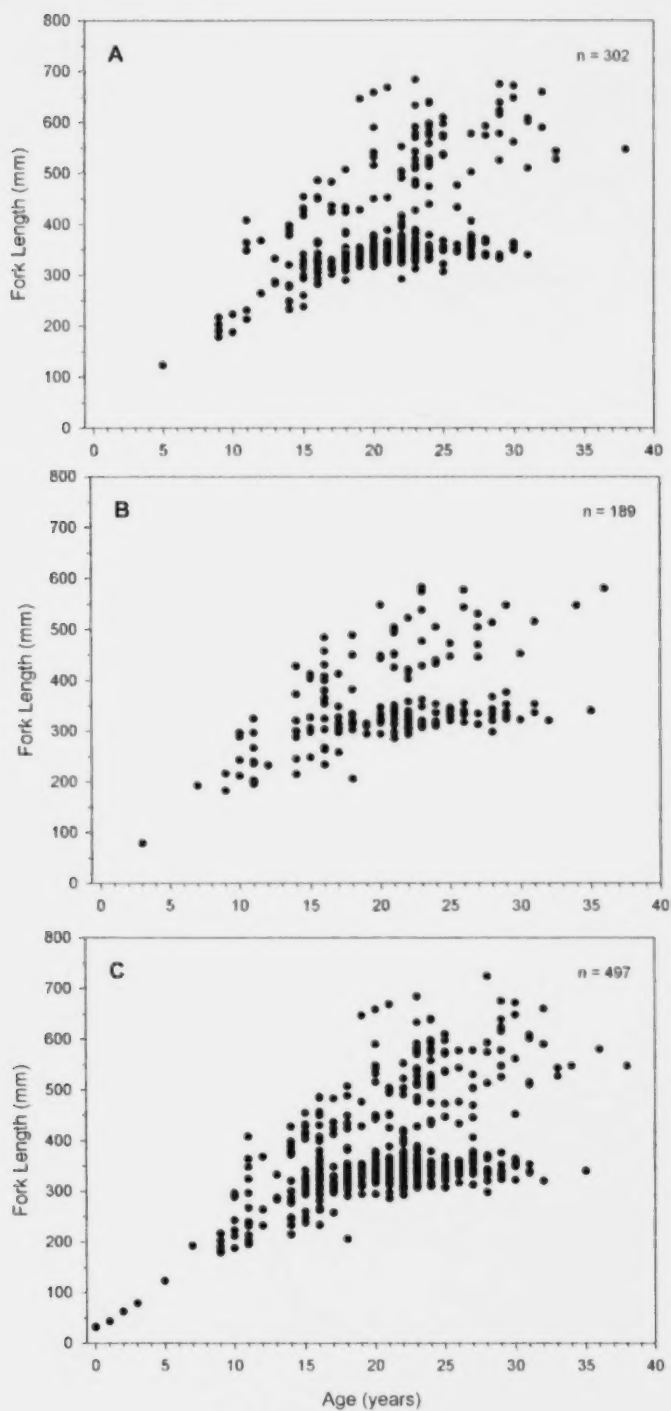


Figure 6. Relationship between fork length and age for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1958 using the revised ages.



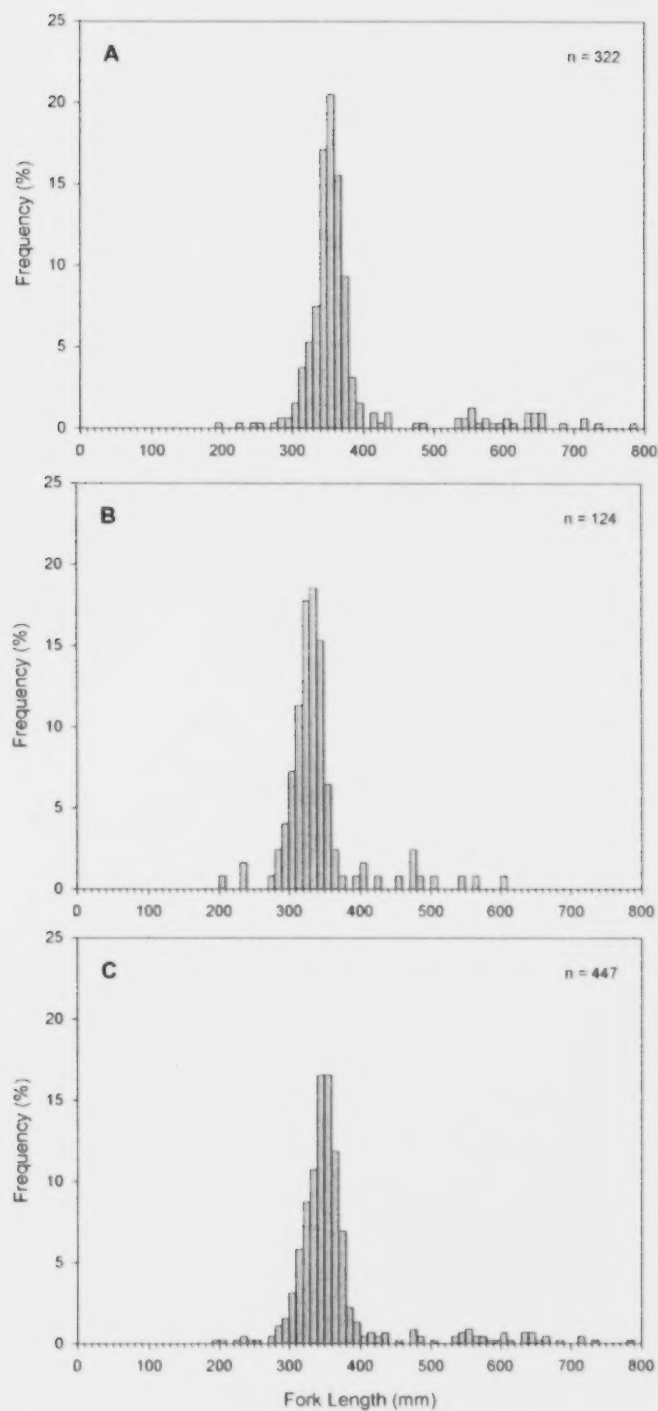


Figure 7. Length-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1981.

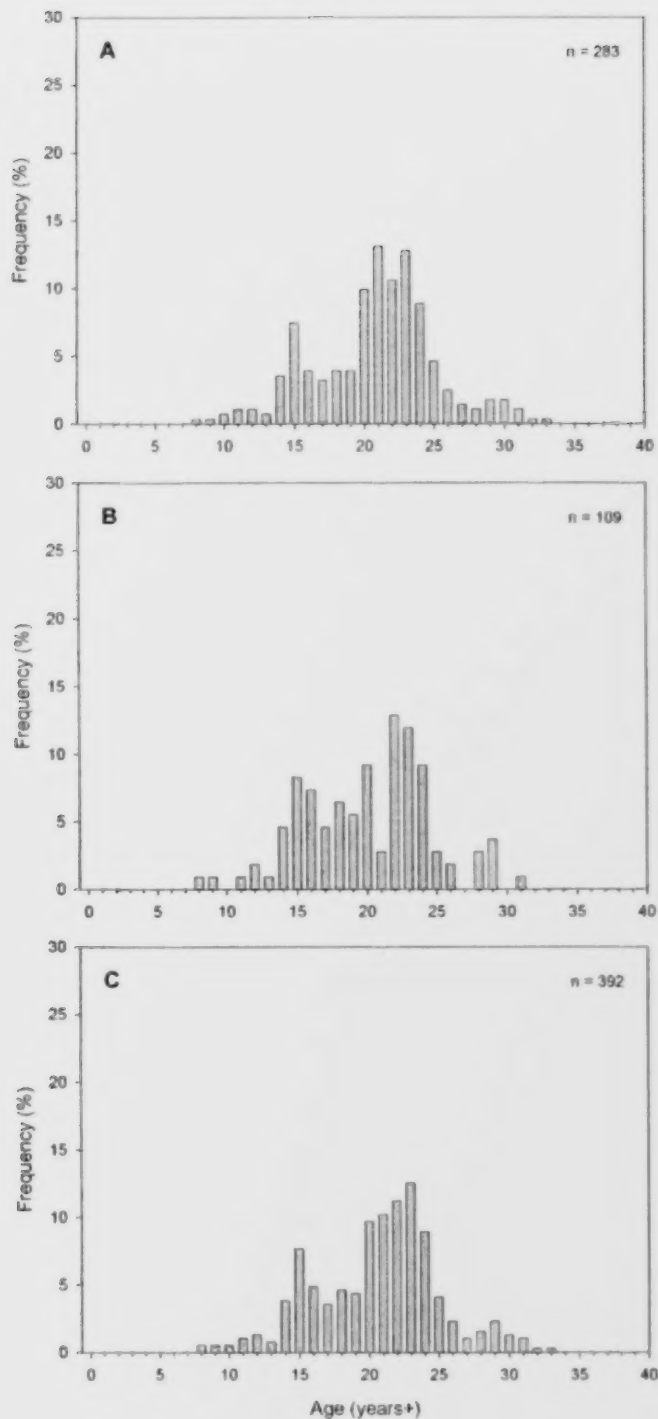


Figure 8. Age-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1981 using the revised ages.

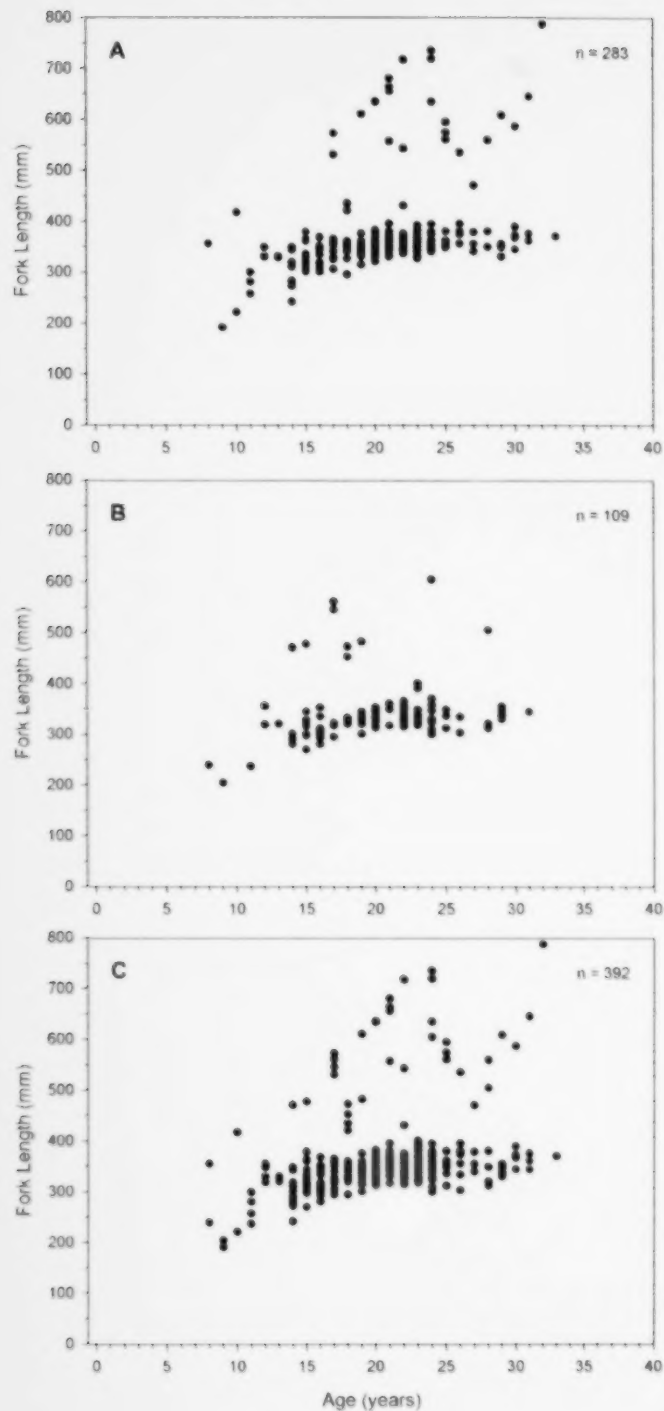


Figure 9. Relationship between fork length and age for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1981 using the revised ages.

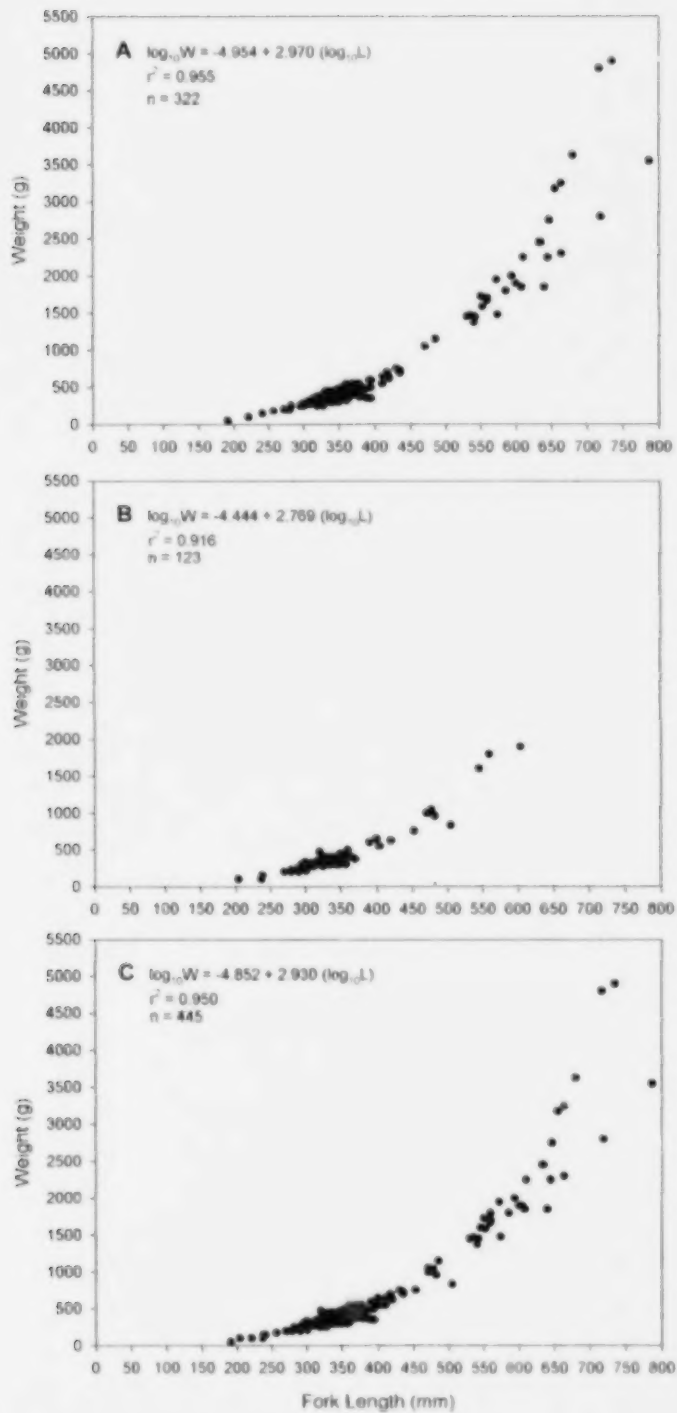


Figure 10. Relationship between weight and fork length for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1981.

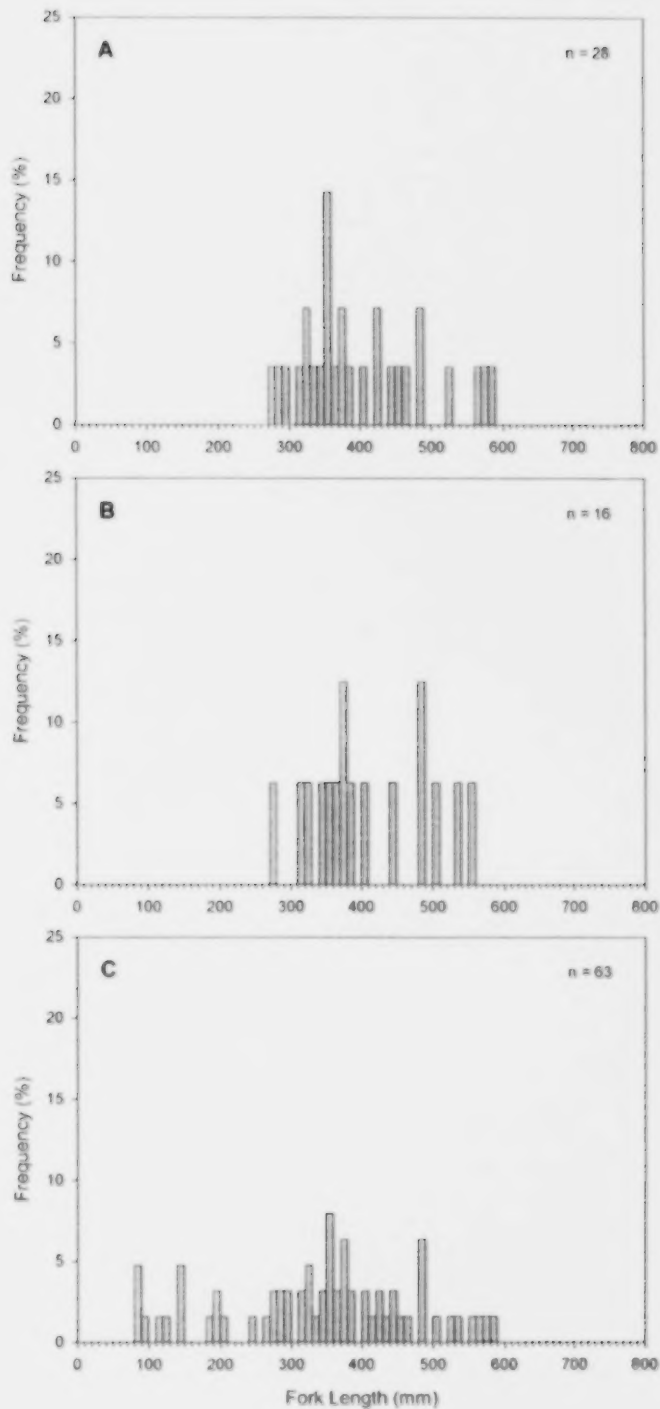


Figure 11. Length-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1990.

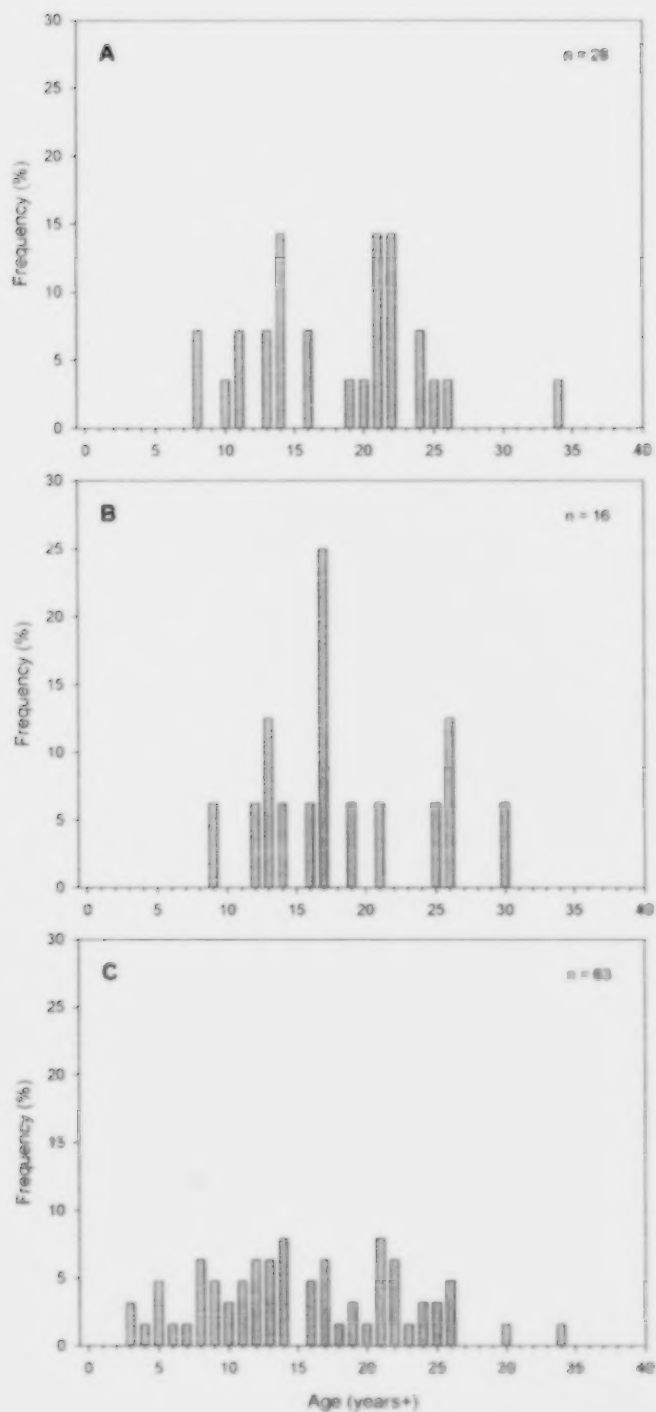


Figure 12. Age-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1990.

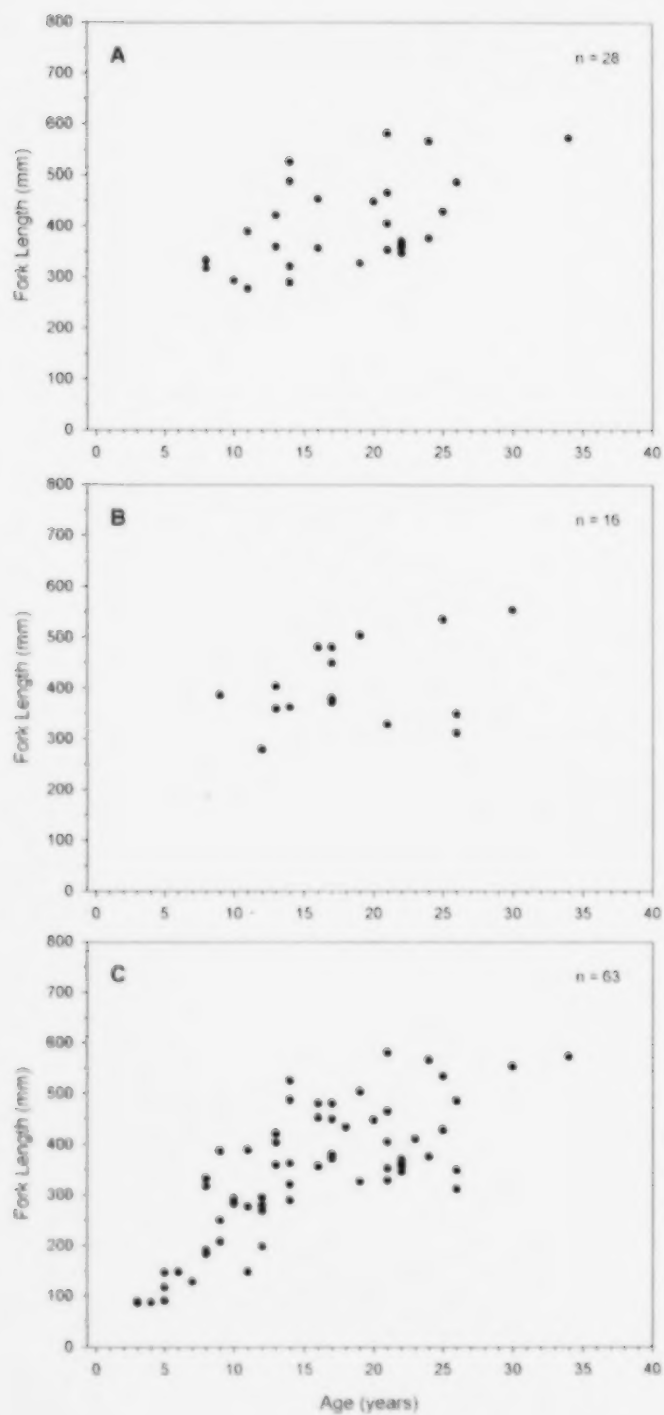


Figure 13. Relationship between fork length and age for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1990.

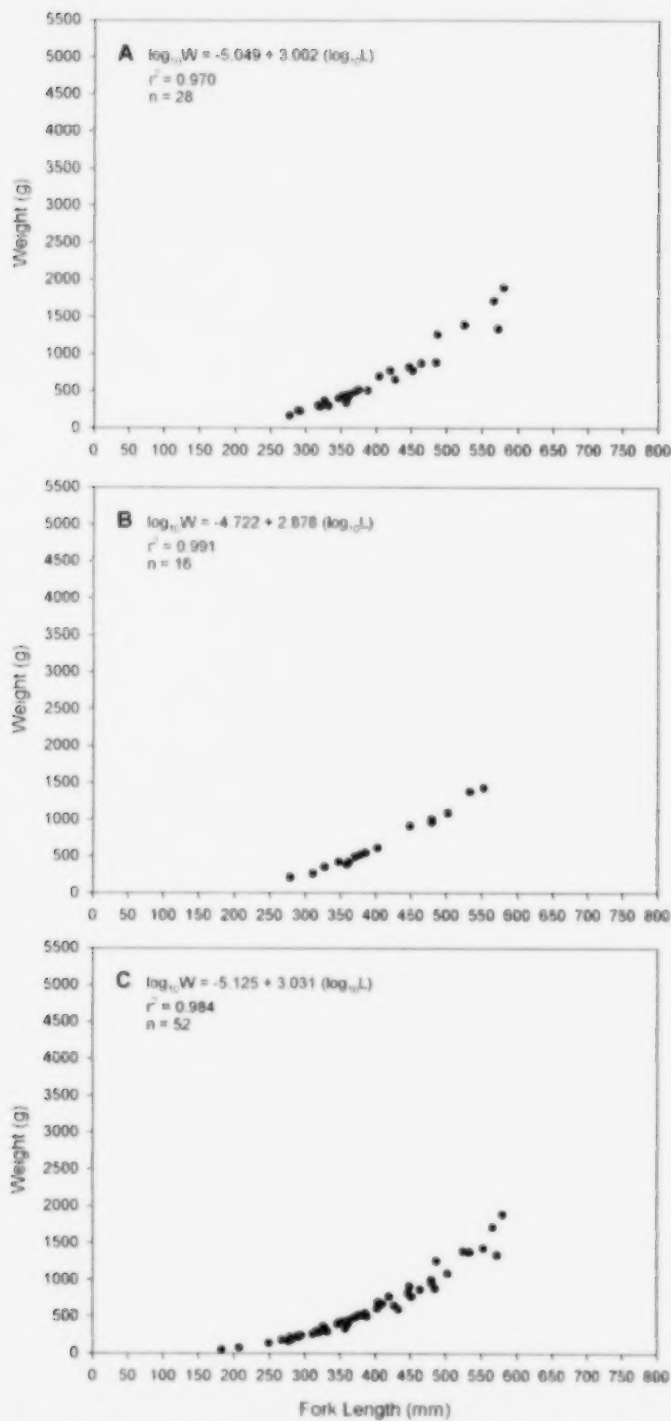


Figure 14. Relationship between weight and fork length for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1990.



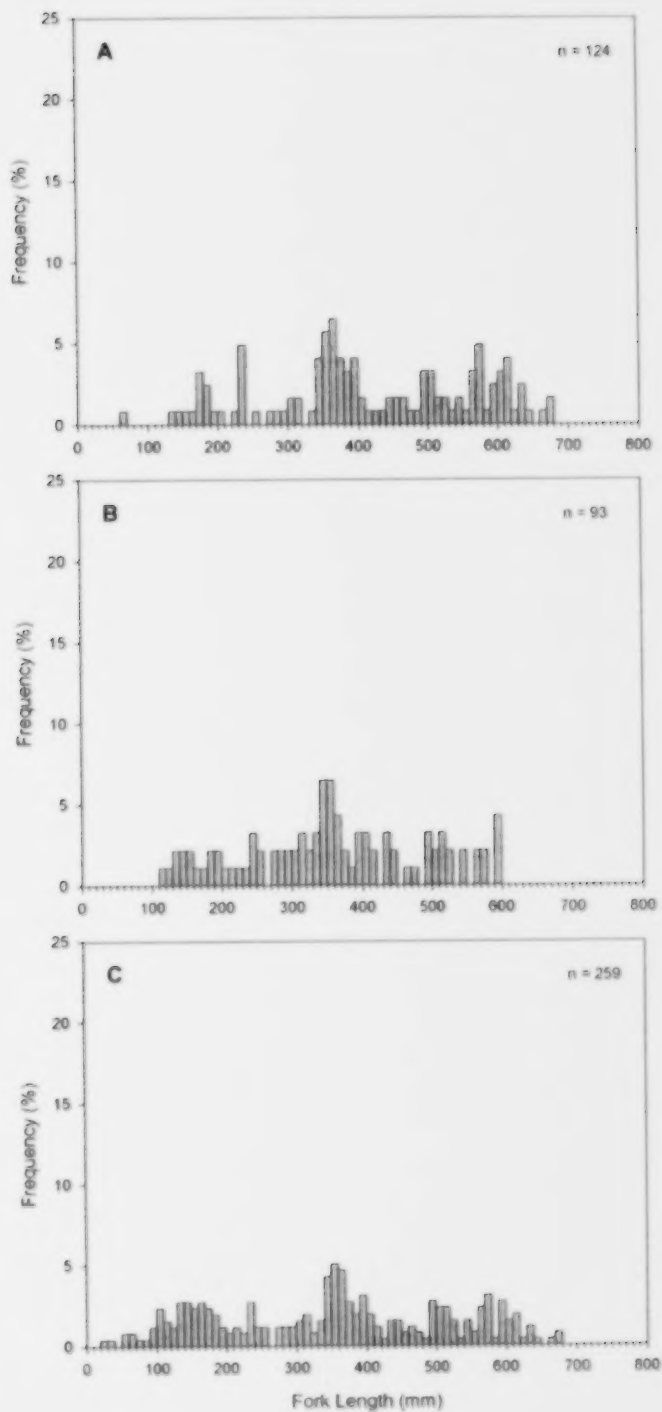


Figure 15. Length-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1992.

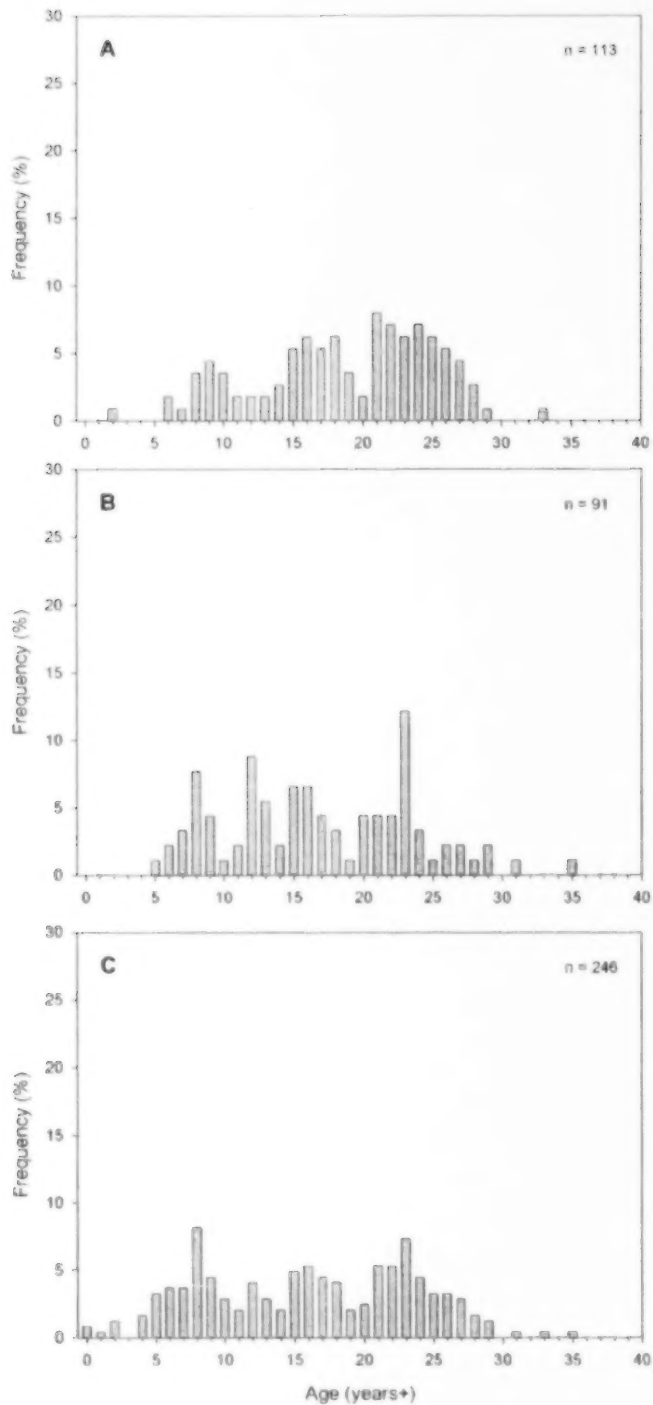


Figure 16. Age-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1992.

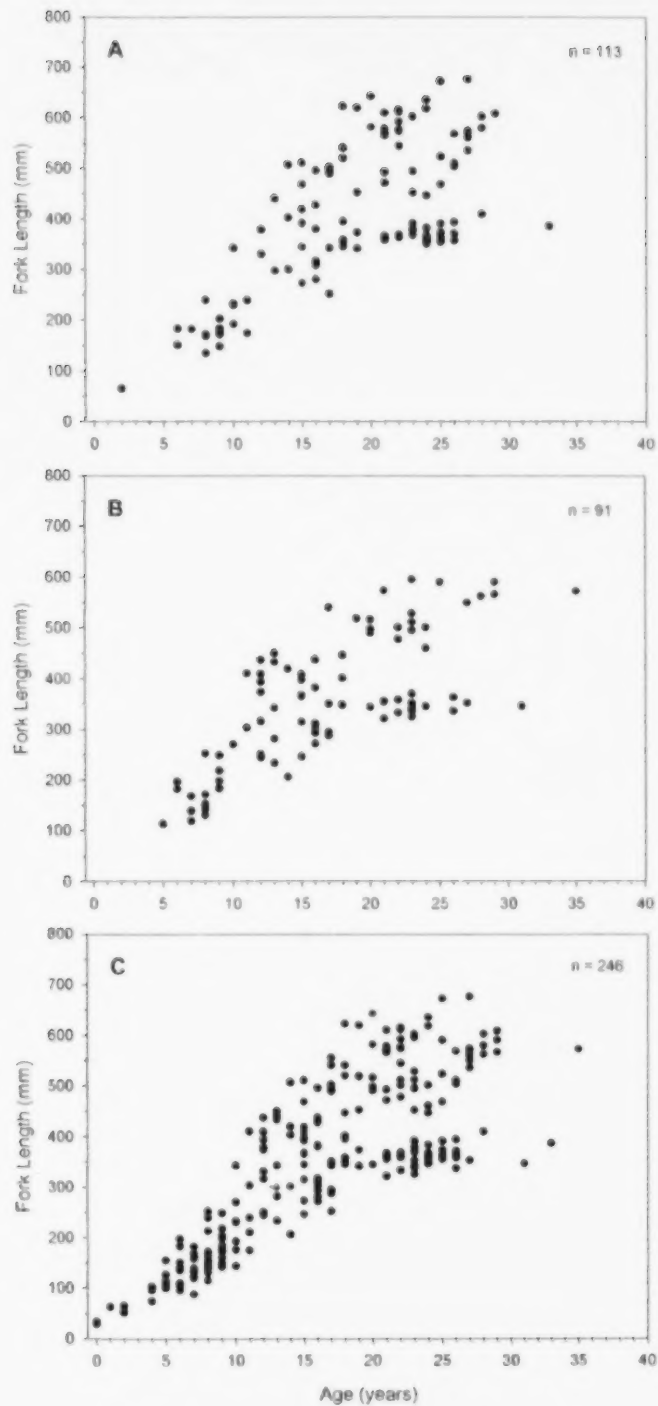


Figure 17. Relationship between fork length and age for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1992.

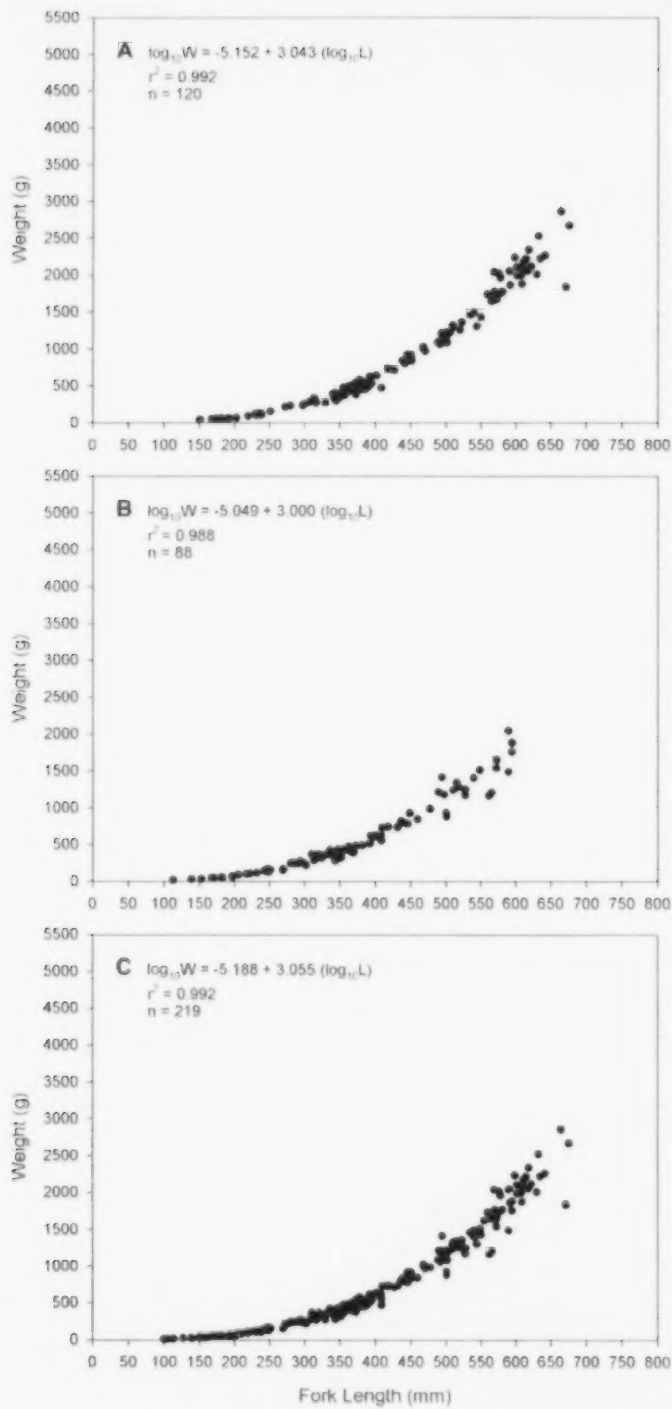


Figure 18. Relationship between weight and fork length for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1992.

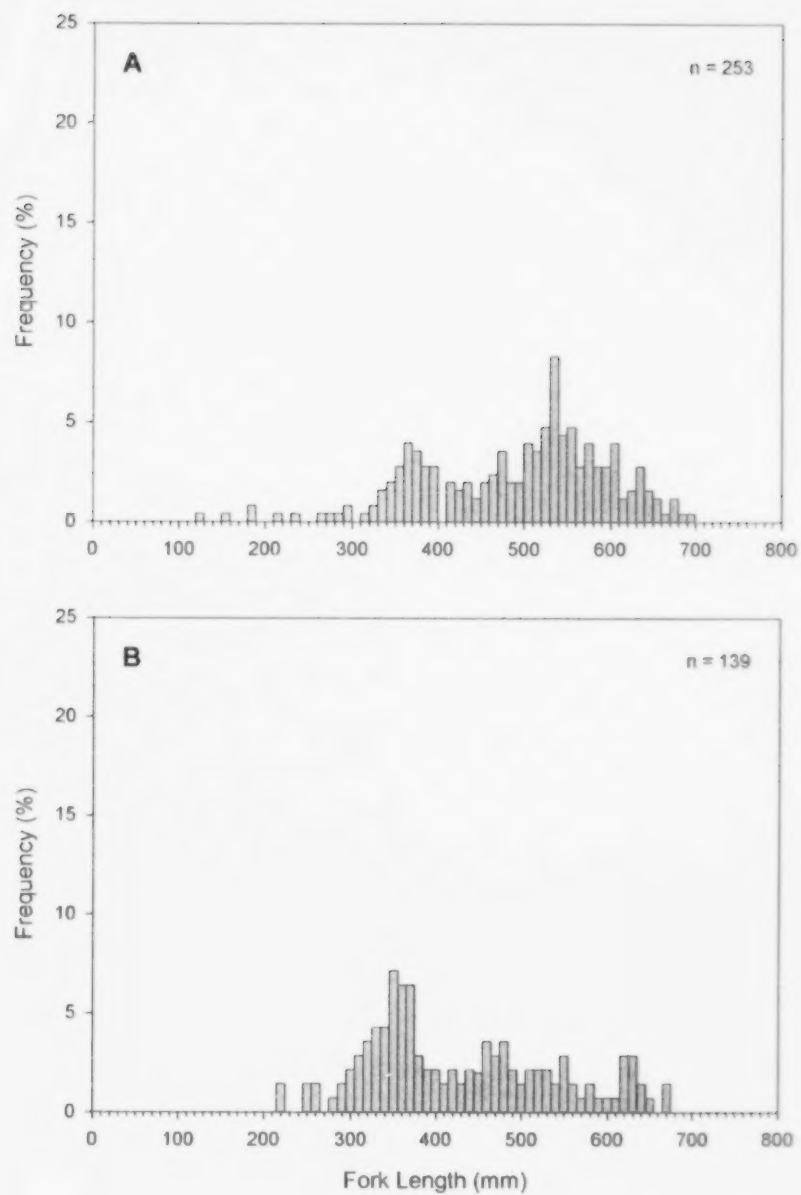


Figure 19. Length-frequency distributions for all Arctic char captured in Lake Hazen in (A) 1995 and (B) 1996.

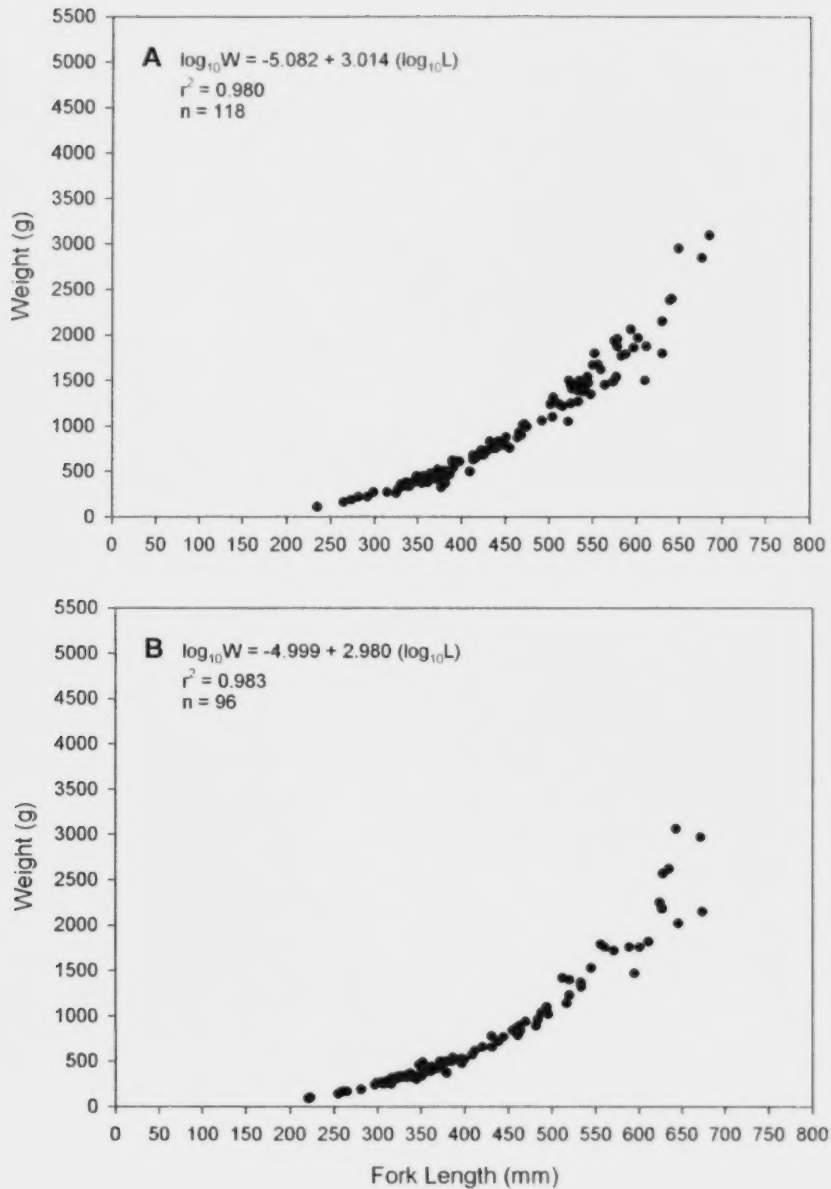


Figure 20. Relationship between weight and fork length for all Arctic char captured in Lake Hazen in (A) 1995 and (B) 1996.

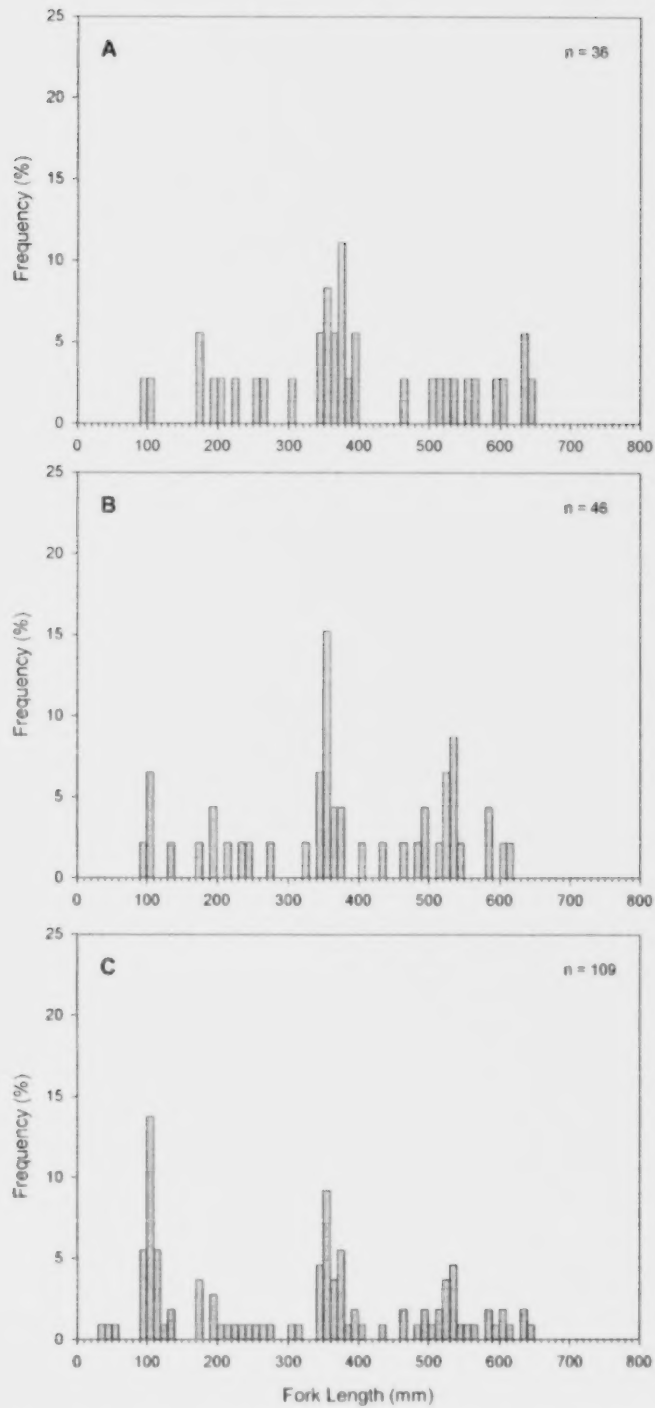


Figure 21. Length-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1998.

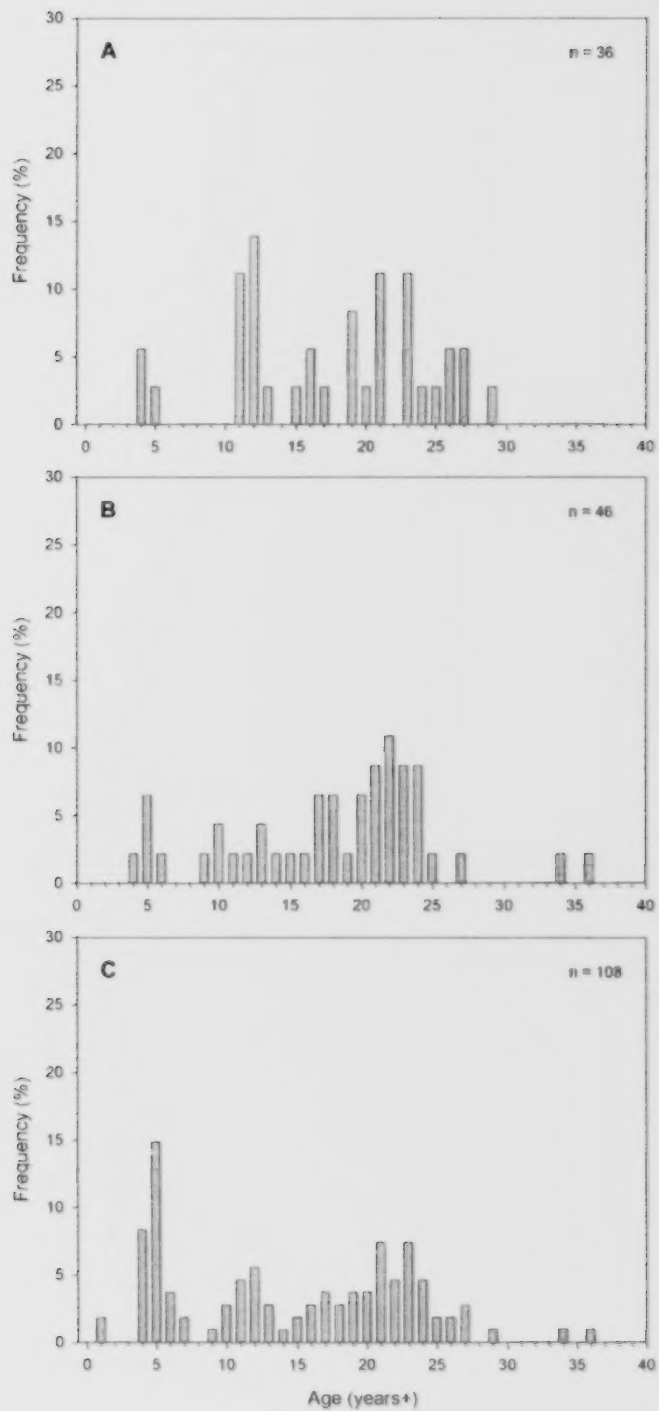


Figure 22. Age-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1998.



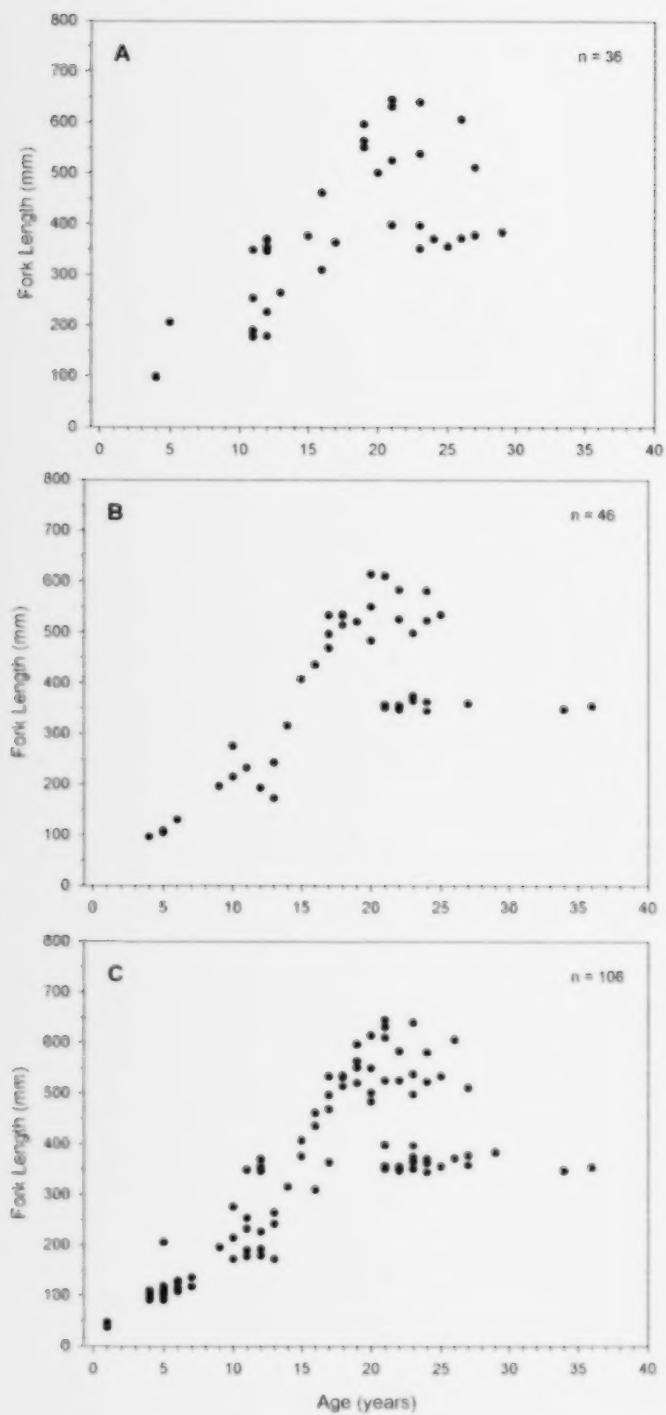


Figure 23. Relationship between fork length and age for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1998.

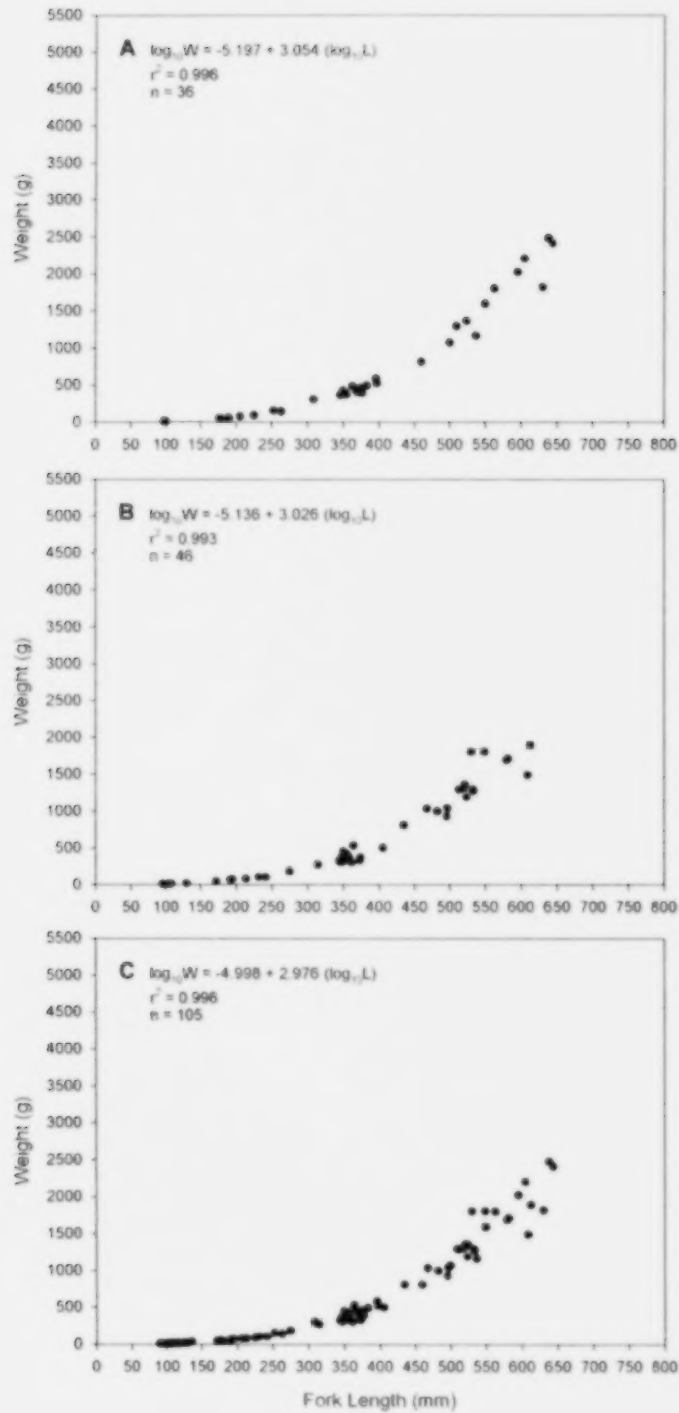


Figure 24. Relationship between weight and fork length for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 1998.

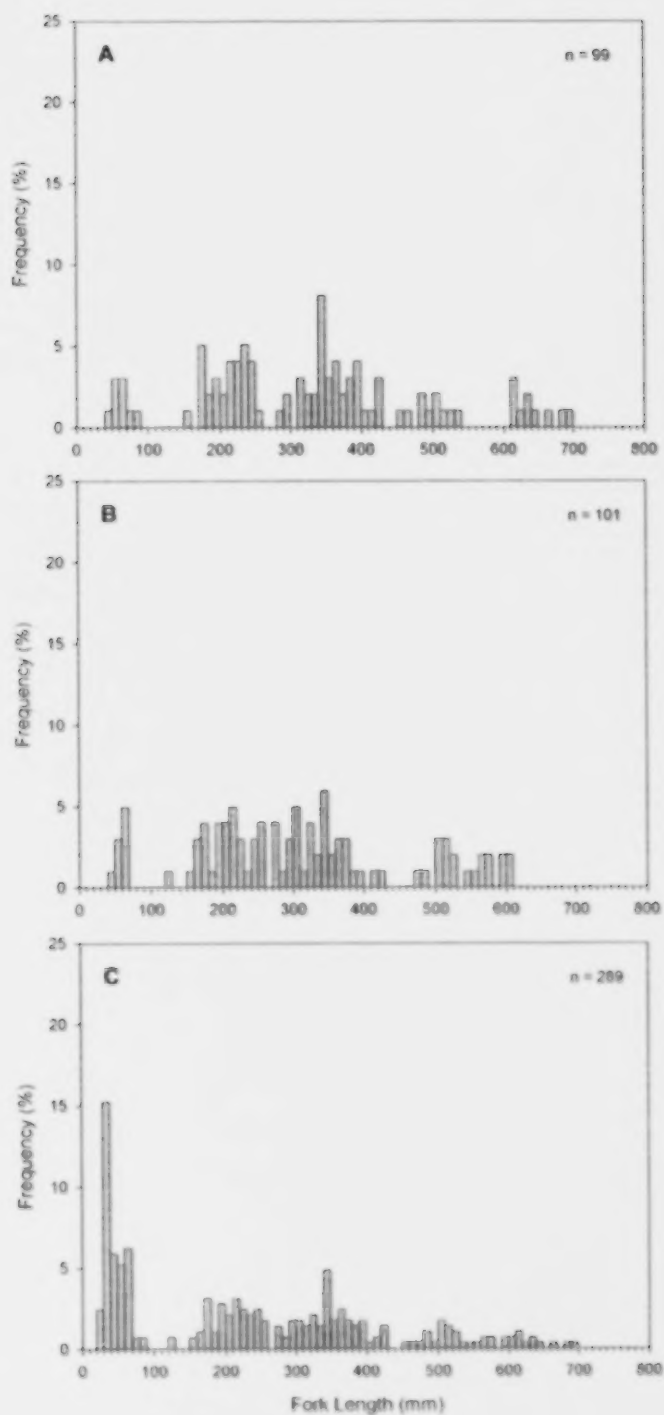


Figure 25. Length-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 2001.

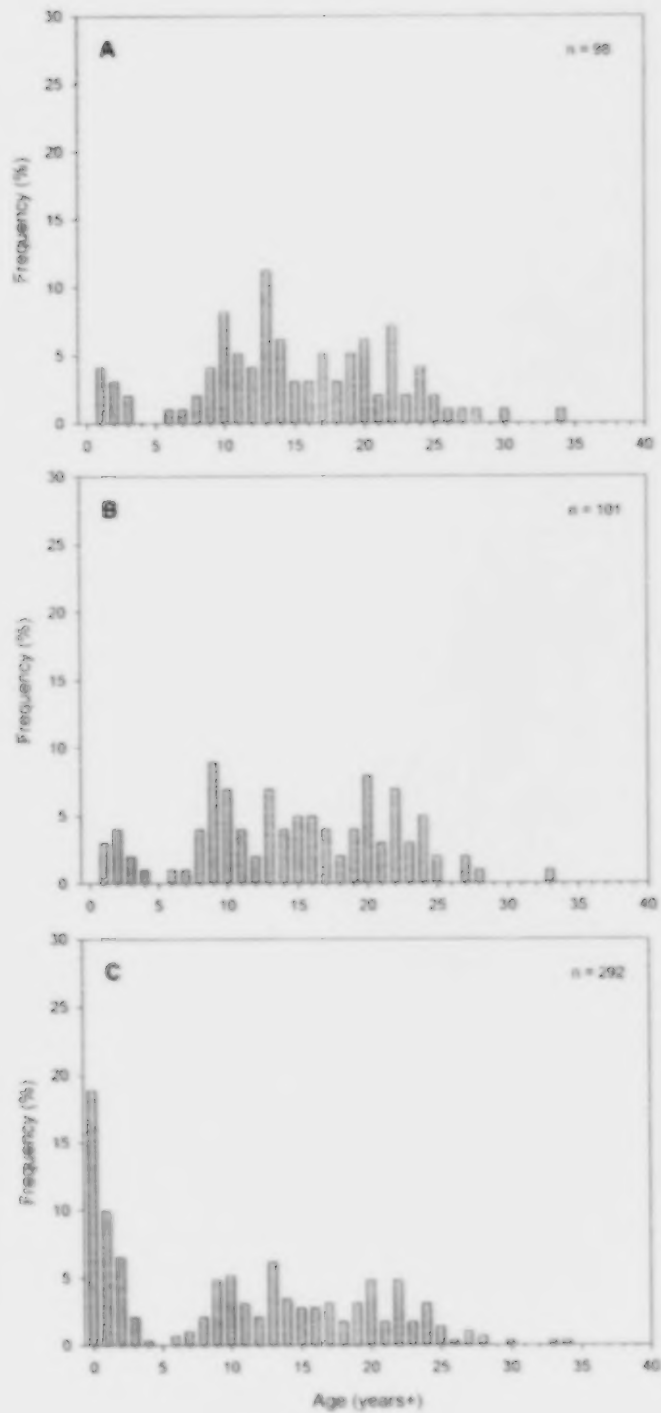


Figure 26. Age-frequency distributions for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 2001.

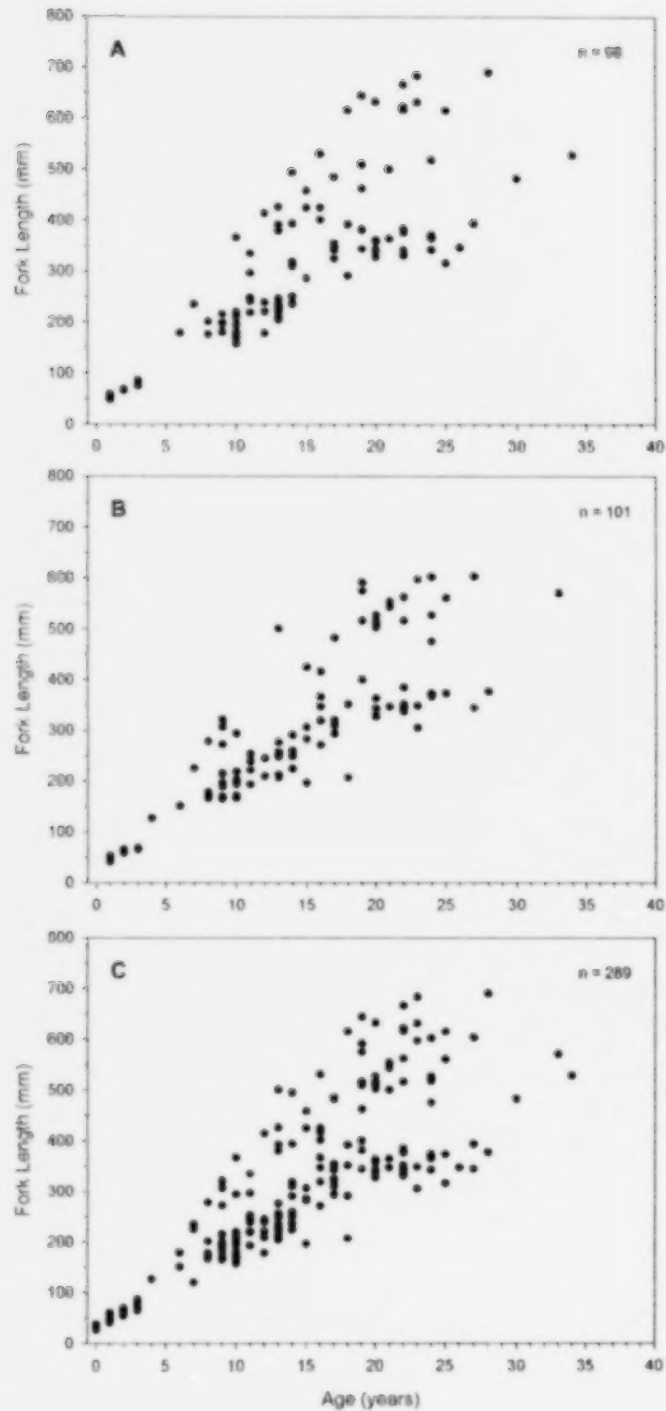


Figure 27. Relationship between fork length and age for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 2001.

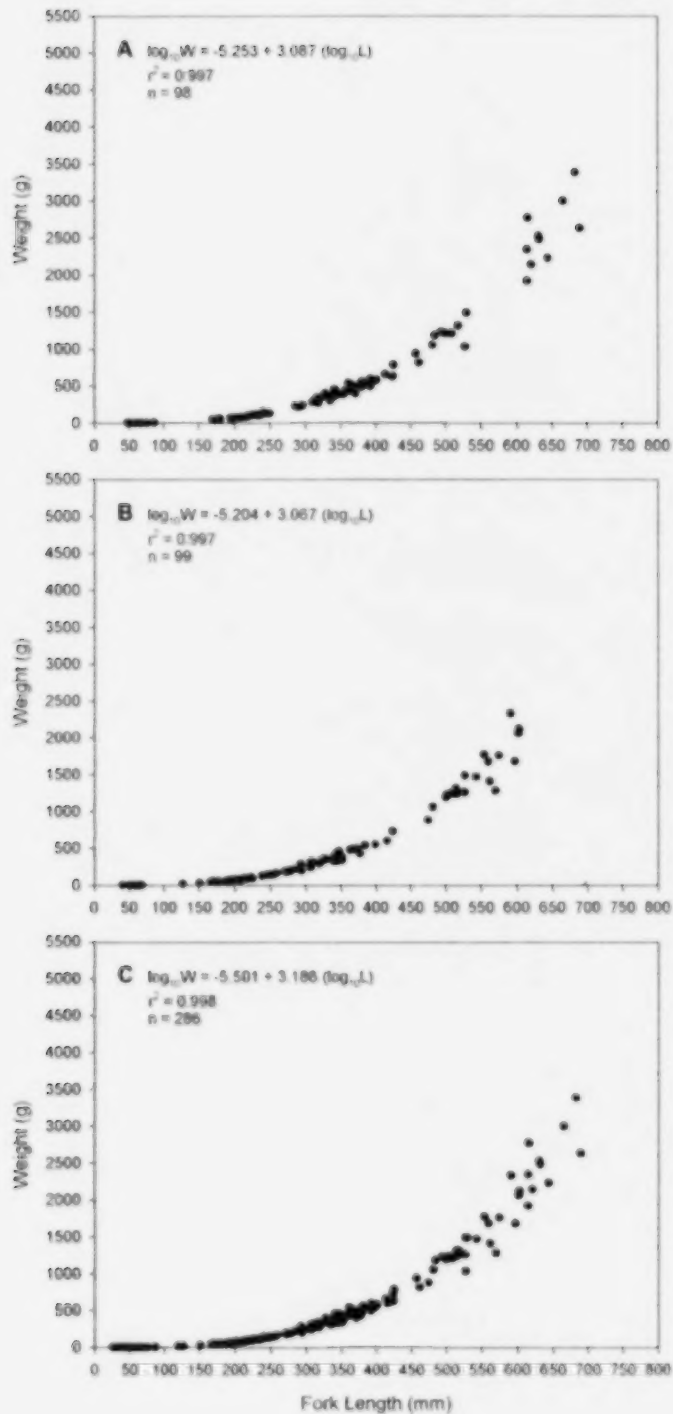


Figure 28. Relationship between weight and fork length for (A) male, (B) female and (C) all Arctic char captured in Lake Hazen in 2001.



